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THE BI

For more than 80 years Fulton has served the milling industry, producing textile and paper bags that have built a reputation for quality and dependability. During war and peace, boom and depression Fulton has been a reliable source of supply for the many different types of packages used for flour, meal and feed

ALITY COTTON BAGS

Are made from goods woven in our own cotton mills and finished in our own bleachery —where we can control every step in the manufacturing process.

ALITY BURLAP BAGS

Fulton Bag & Cotton Mills has for many years been a large direct importer of burlap. Long experience and established position in the trade are your guarantee of dependable quality and timely delivery.

AND LABEL BAGS

Are available in the newest patterns and most colorful assortments designed to appeal to the housewife for home sewing.

LTIWALL PAPER BAGS

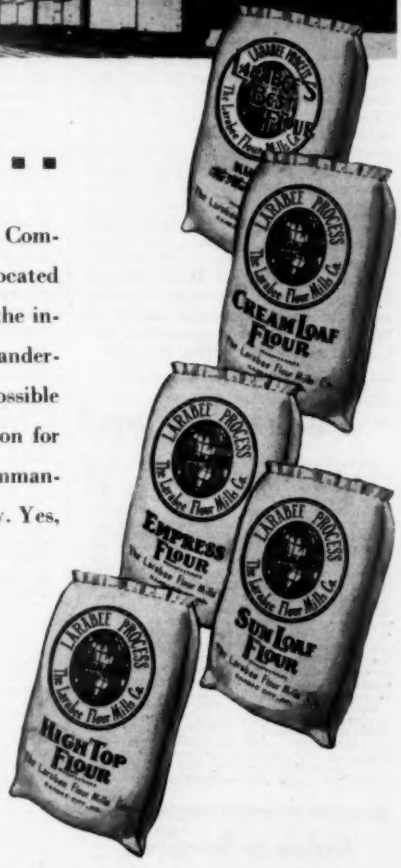
To your specifications, all types —sewn open mouth, sewn valve, sewn valve with LC sleeve or tuck-in sleeve, pasted open mouth, pasted valve

- Atlanta
- St. Louis
- Dallas
- Kansas City, Kans.
- Denver
- Minneapolis
- New Orleans
- Los Angeles
- New York, 347 Madison Ave.

Fulton BAG & COTTON MILLS

HERE'S WHY...

This composite illustration of the giant Commander-Larabee mills and elevators, located strategically across the nation, gives some idea of the investment and facilities behind every bag of a Commander-Larabee flour. The quality and uniformity made possible by these huge modern milling facilities is one reason for the ever-growing recognition and acceptance of Commander-Larabee flours by America's breadstuffs industry. Yes, the millions invested by Commander-Larabee in mills, personnel and "know-how" assures more and still more quality, dependability and uniformity in products that have met the needs of bakers everywhere for more than a generation!



WHEN PERFORMANCE COUNTS...

Commander-Larabee Milling Company

GENERAL OFFICES | MINNEAPOLIS • 2 • MINNESOTA

INFORMATION on MILLING INDUSTRY

FLOUR production during 1950 continued the decline from its peak year of 1947, but the drop was considerably less than in the previous two years, indicating that the output may be reaching a stabilized level.

Production last year totaled 225,697,000 sacks, a drop of about 3.7% from the 1949 output of 234,351,000 sacks. The 1949 production took a big decrease of about 15% from the 1948 output of 279,133,000 sacks, and the 1948 production, in turn, was off the pace of 305,499,000 sacks, in the record-breaking year of 1947.

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As in the past several years, the principal reason for the continuing decline in production was the shrinking of the export trade. In 1947, for instance, when mills put all available capacity into operation to post their heaviest outturn, exports of flour totaled 98,633,000 sacks. This figure was reduced to 75,039,000 in 1948, to 32,218,000 in 1949 and to 19,864,000 in 1950. The latter figure is the lowest flour export total since 1944, when 16,899,000 sacks were shipped.

Thus, the effect of World War II and the postwar period on flour exports is paralleling that of World War I, with a steady expansion, high level of movement during and immediately following the war period, then a sharp break and a steady decline.

From a World War I peak movement of 51,841,000 sacks in 1919, flour exports decreased to a low point of 6,475,800 sacks in 1935, and the slow movement continued until the World War II spurt.

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Although the 1950 flour production was 8,654,000 sacks below that of 1949, it exceeded output in any year up to 1943. Mill operations averaged about 76% of capacity, as computed on a five-day-a-week basis.

There has not been any appreciable reduction in daily capacity in the group of mills which accounts for the bulk of the nation's flour output, as disclosed by the List of Flour Mills in the U.S., compiled by The Northwestern Miller. The 1951 list shows 1,799 wheat flour mills, a reduction of 361, or about 17%, from the 2,160 mills reported in the 1948 mill directory.

The potential 24-hour capacity of all U.S. flour mills, active and idle, stands at 1,282,796 sacks, compared with a potential capacity of 1,334,480 sacks, shown in the 1948 directory. Thus, the net decline in potential capacity in the two years totals 51,684 sacks, or 3.9% less over the period, as compared with a 17% decline in the number of mills.

The mills which went out of business during the period in question generally were in the small capacity group, with a daily output potential of from 50 to 250 sacks. Offsetting this loss, about 150 U.S. mills have increased their capacity since 1948 from 50 to 2,000 sacks for a total of 52,920 sacks gain. Another offset was the addition of 17 mills to the list, the largest with a daily capacity of 3,300 sacks.

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Resumption of wartime conditions in 1950 was responsible for a return of government controls. Millers' costs continued to rise and for the 1949-50 crop year were the highest in history. The cost of producing flour in 1949-50 was 7.3¢ a sack higher than in the previous crop year, and 28.6¢ higher than during 1941-42.

There are evidences that production of flour may be seeking a stabilized level after the big outturn in 1947 and the subsequent declines. Left for domestic consumption from the 1947 output, after record exports, were 302.4 million sacks. Left for domestic consumption in 1949 were 204.7 million sacks; in 1950, 205,833,000 sacks. With domestic usage holding its own, and with little room left for further shrinkage of exports, stabilization of production may be at about the current level.

Packaging and Labeling Laws

Federal and state laws govern the packaging and labeling of flour in the U.S. The state laws conform with federal rules but vary considerably in regulatory detail.

The federal statute governing packaging and labeling of flour is the Food, Drug and Cosmetic Act of 1938, which became effective June 25, 1939. This law superseded the Food and Drugs Act of 1906. It is administered by the Food and Drug Administration, Federal Security Agency, Washington, D. C. The law applies to foods, drugs and cosmetics which move in interstate commerce. The person shipping or offering to ship in interstate commerce has the responsibility of conforming to the law, no matter whose name appears on the goods, unless he is acting in good faith under a guaranty supplied by the person from whom he received the goods.

The federal act prohibits adulteration and misbranding of articles within its scope. Flour is considered to be adulterated if it or its container consists in any degree of a poisonous or deleterious substance, if it contains any filthy, putrid or decomposed substance, if it has been packed or held under unsanitary conditions or if damage or inferiority has been concealed in any manner.

Label Requirements

A general statement of the labeling requirement for food packages is contained in Section 201 (n) of the Food, Drug and Cosmetic Act, which states:

"If an article is alleged to be misbranded because the labeling is misleading, then in determining whether the labeling is misleading there shall be taken into account (among other things) not only representations made or suggested by statement, word, design, device, or any combination thereof, but also the extent to which the labeling fails to reveal facts material in the light of such representations or material with respect to consequences which may result from the use of the article to which the labeling relates under the conditions of use prescribed in the labeling thereof or under such conditions of use as are customary or usual."

Under the federal law the required labeling information must appear on the side or panel displayed under customary conditions of purchase. If any of the required information should appear elsewhere on the package it must be complete and conform to the requirements for the same information appearing on the main label. The label information must not be false or misleading in any particular. The name of the article must be shown as its usual or common name unless a standard of identity has been established, in which case the name in the standard is required. It is therefore necessary that flour packages carry the appropriate name: flour, enriched flour, bromated flour, enriched bromated flour, durum flour, self-rising flour, enriched self-rising flour, phosphated flour, whole wheat flour, bromated whole wheat flour, whole durum wheat flour, crushed wheat, cracked wheat, farina, enriched farina and semolina.

The label must show the true name and address of the manufacturer, packer or distributor. If the name shown is not that of the actual manufacturer, it must be preceded by "Manufactured for and Packed by", "Distributed by," or other similar phrase. The address shown may be that of the person's principal place of business in lieu of a branch packing or distributing plant provided the statement is not misleading. The name on the package may be a trade name if it has a legally recognized identity and if the manufacturer has a legal right to do business under it. Completely fictitious trade names and those of no recognized legal standing are forbidden.

Weight on Label

The main label must contain an accurate statement of the contents of the package, and must be in terms generally understood by consumers. It is not necessary to use the terms "net" or "net weight" because the statute requires the weight expressed to be net. The term "net weight when packed" is regarded as misleading and should not be used. Reasonable variations in weight from that stated on the label are permitted if the variations are caused by ordinary and customary exposure to conditions which normally occur in good distribution practice, or if caused by unavoidable deviations in weighing individual packages which occur in good distribution practice. All the packages in a given shipment must average as much as the stated weight for a single package, and no unreasonable shortage is permitted even though it may be compensated for by overages in other packages of the same shipment.

Bleached Flour

The word "bleached" must immediately precede or follow the name of the flour, except when the name is part of the trademark or brand. In that case the word "bleached" must be so placed with regard

Index to Sections

BAKING 111
FEED 91
FOREIGN 42
GRAIN 56
MILLING 2

to the trademark or brand as to be conspicuously related to the name.

Under the law a person is exempted from penalties for introducing adulterated or misbranded food into interstate commerce if he establishes a guaranty, signed by the person from whom he received the food in good faith, to the effect that the article is not adulterated or misbranded within the meaning of the act. There are two types of guaranty permitted: (1) covering a specific shipment, in which case it may be attached to the invoice or bill of sale, and (2) general and continuing. The label must not contain any representation that the article is guaranteed under the act.

Enriched Flour

Enriched flour conforms to the definitions and standards of identity established by the Food and Drug Administration, Federal Security Agency (see page 14), and is subject to the requirements for label statement of optional ingredients. Flour and bread standards are interrelated in that bread made from enriched flour will meet the enriched bread standard.

Enrichment standards in milligrams per lb., unless otherwise stated, are as follows:

	Flour standard		Bread standard	
Required	Min.	Max.	Min.	Max.
Thiamine ...	2.0	2.5	1.1	1.3
Riboflavin ...	1.2	1.5	0.7	1.6
Niacin	16.0	20.0	10.0	15.0
Iron	13.0	16.5	8.0	12.5
Optional				
Calcium 500		625	300	800
Vitamin D ..250		1000	150	750
USP units				

Label statements for enriched flour as recommended by the Millers National Federation, are:

"Eight ounces of enriched flour supply not less than the following proportions of the minimum daily requirements of thiamine 100%, riboflavin 30%, iron 65%, and 8 mg. of niacin." Thiamine, riboflavin and niacin are B vitamins.

The foregoing declaration covers only the four required ingredients in enriched flour. If desired, the miller may add a parenthetical explanation "(another B vitamin)" following the word "niacin."

If either or both of the optional ingredients, vitamin D and calcium, are added to enriched flour, the declaration would read as follows:

"Eight ounces of enriched flour contain not less than the following proportions of the minimum daily requirements of vitamin B_1 100%, riboflavin 30%, vitamin D 31%, iron 65%, calcium 33%, and 8 mg. of niacin."

The federation has recommended the following declaration for enriched self-rising flour:

"Eight ounces of enriched self-rising flour contain not less than the following proportions of the minimum daily requirements of vitamin B_1 100%, riboflavin 30%, iron 65%, calcium 66%, and 8 mg of niacin."

If vitamin D is to be added as an optional ingredient to enriched self-rising flour, the percentage declaration would be the same as it is with respect to enriched flour, namely, 31%.

Bread Labels

Bread standards are in the process of formulation by the Food and Drug Administration, under the Federal Security Agency, and pending their establishment, labeling regulations are in conformance with the bread standard established by order of the War Food Administration and now incorporated in state and territorial enrichment laws.

The label statement for bread currently recommended by the American Bakers Association and permitted by the Food and Drug Administration, is as follows:

"One half pound of this bread supplies you with at least the following amounts or percentages of your minimum daily requirement for these essential food substances: thiamine (Vitamin B_1) 55%; riboflavin (Vitamin B_2) 17.5%; niacin (another "B" vitamin) 5 milligrams; iron 40%."

However, if 8 slices actually weigh one half pound, it is held permissible and desirable to place a previously recommended reference to "8 slices" in the dietary statement.

The same label statement is proper for enriched white rolls and buns except that the following change should be made: The words "this bread" should be deleted and "these rolls" substituted; the statement would then read "one half pound of these rolls supplies, etc. . . ."

Unless the word "enriched" is used on the label of rolls or buns it is not necessary to use a dietary statement. But should the word "enriched" appear any place on the label other than in the list of ingredients, the dietary statement is required.

These label requirements apply only to those bakery products which move in interstate commerce.

Details of label requirements for wheat flour products and mixtures are contained in "Definitions and Standards for Food," obtainable from the Food and Drug Administration, Federal Security Agency, Washington 25, D. C.

Prepared Mixes

In prepared flour mixes, it is not necessary to show the amounts of each constituent in the mix, but the ingredients should be listed in a descending order of the amounts of each ingredient. All ingredients should be noted on the label, except as permitted in the standard of identity.

Enrichment Premix Standard

A schedule of recommended levels of enrichment ingredients in premixes has been specified by the technical committee of the Millers National Federation. The levels provide a safety factor to insure compliance with government standards for enriched flour.

The recommended levels to be added to each pound of natural flour are: 1.9 mgs thiamine, 1.15 mgs riboflavin, 13.7 mgs niacin, 13 mgs iron. These amounts when added to the amounts in flour should in all cases bring the product up to the minimum standard for enriched flour.

Manufacturers of commercial premixes have been informed of these recommendations and assurance has been given that premixes conforming to these specifications will be made available to millers. These premixes should be added to the flour stream at the rate recommended by the manufacturer and feeders should be adjusted carefully on that basis and watched closely, the federation points out.

The technical committee recommends addition of a uniform amount of the premix to all grades of flour, except that in the rare cases where clears and stuffed straights are treated special rates of addition may be calculated provided the 10% safety factor is observed. It is possible that in some cases short patent flour may require a slight addition to the standard rate of feeding but such instances can be determined by analysis.

State Enrichment Laws

When War Food Administration Order No. 1 was rescinded, Oct. 18, 1946, enrichment ceased to have statutory support except in those states, which, anticipating this event, had passed laws calling for compulsory enrichment. At the beginning of 1951, 26 states and the territories of Hawaii, Alaska and Puerto Rico had such laws, the states being: Alabama, Arkansas, Colorado, Georgia, Indiana, Kansas, Kentucky, Louisiana, Maine, Massachusetts, Mississippi, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Rhode Island, South Carolina, South Dakota, Texas, Washington, West Virginia and Wyoming. Kentucky's law became effective July 1, 1950. All the state laws follow closely those of WFO-1. The required enrichment ingredients are given on this page. The statutes uniformly exempt flour ground for toll, or flour sold to bakers, distributors and other secondary processors if the sale is accompanied by a certificate from the purchaser of intent to enrich.

Most of the laws include a provision similar to the following: "In the event of an existing shortage or imminent shortage of any required ingredient, with the result that the sale and distribution of flour and bread may be substantially impeded by the enforcement of the statute, an order will be made effective immediately permitting the omission of such ingredients from flour and bread.

Used Flour Sack Regulations

The following 13 states have regulations which prohibit the use of secondhand bags in the packaging and sale of flour: Arizona, Georgia, Illinois, Kansas, Michigan, Montana, Nebraska, New Jersey, North Carolina, Oklahoma, South Carolina, Texas and Washington. Georgia prohibits the use of secondhand bags for packaging and sale of flour except that mills may ship to blenders in used bags, provided such bags have been well laundered, mended and are sanitary and that the blenders use only new bags after blending the flour, and manufacturers may pack flour for their own use in used containers which are well laundered and sanitary. Several states permit the use of secondhand sacks in packaging flour provided they are properly laundered and sanitary. These states are Alabama, Indiana, Iowa, Louisiana, Massachusetts, Minnesota, Mississippi, New York, South Dakota, Tennessee and Wisconsin. The remaining 24 states and the District of Columbia have no regulations prohibiting the use of secondhand containers.

U.S. Retail Flour Prices

Note: Average price in leading cities in cents per 10 lb. from 1944 to 1945; per 5 lb. from 1946 on. Source: U.S. Department of Labor.

	1944	1945	1946	1947	1948	1949	1950
Jan.	64.6	64.2	31.9	41.7	54.4	48.3	48.3
Feb.	65.1	64.2	32.0	42.5	50.9	48.1	48.4
March	65.2	64.2	31.9	44.5	49.7	48.1	48.5
April	65.1	64.3	31.9	48.5	49.0	48.0	48.8
May	65.2	64.2	31.7	49.6	48.9	48.1	49.0
June	64.9	64.3	31.9	49.1	48.7	47.7	49.1
July	64.8	64.3	35.0	48.5	48.2	47.4	49.2
August	64.6	64.3	38.2	48.3	47.9	47.4	49.7
Sept.	64.4	64.2	38.6	48.9	47.8	47.5	49.7
Oct.	64.1	64.1	40.2	50.1	47.6	47.7	49.6
Nov.	64.2	64.1	40.7	52.9	47.5	48.1	49.5
Dec.	64.1	64.0	41.1	54.1	47.9	48.1	49.7
Aver. ...	64.7	64.2	35.4	48.2	49.0	47.9	49.1

Toronto Flour Prices

Note: Top patent spring wheat flour, average price per barrel. Source: The Northwestern Miller.

	1950	1949	1948	1947	1946	1945
Jan. $11.10		$8.60	$8.65	$5.05	$5.05	$5.05
Feb.	11.10	8.60	8.65	5.05	5.05	5.05
March ..	11.10	9.02	8.47	5.05	5.05	5.05
April	11.13	10.80	8.43	5.05	5.05	5.05
May	11.15	10.90	8.45	5.05	5.05	5.05
June	11.15	10.90	8.45	5.05	5.05	5.05
July	11.15	11.00	8.45	5.05	5.05	5.05
Aug.	11.03	11.00	8.51	5.05	5.05	5.05
Sept.	11.00	11.00	8.60	6.67	5.05	5.05
Oct.	11.00	11.04	8.60	9.10	5.05	5.05
Nov.	11.20	11.08	8.60	9.10	5.05	5.05
Dec.	11.20	11.10	8.60	8.80	5.05	5.05
Aver. .$11.11		$10.42	$8.54	$6.17	$5.05	$5.05

Rye Flour Prices

Note: Average prices of white rye flour, basis carload lots, prompt delivery, per sack. Source: The Northwestern Miller.

	Minneapolis			Chicago		
	1950	1949	1948	1950	1949	1948
Jan.	$4.16	$4.63	$7.06	$4.15	$4.78	$7.33
Feb.	3.99	4.18	6.50	4.14	4.28	6.62
March ..	4.15	4.14	6.67	4.23	4.19	6.76
April ..	4.20	4.06	6.65	4.29	4.00	6.72
May	4.34	4.03	6.33	4.39	4.01	6.49
June	4.31	4.03	5.54	4.38	4.04	5.90
July	4.36	4.35	4.95	4.38	4.19	5.38
Aug.	4.37	4.18	4.55	4.44	4.09	4.84
Sept.	4.40	4.28	4.24	4.39	4.23	4.68
Oct.	4.36	4.35	4.57	4.43	4.23	4.85
Nov.	4.61	4.24	4.93	4.52	4.13	5.17
Dec.	4.75	4.20	4.73	4.82	4.16	4.94
	$4.33	$4.22	$5.56	$4.38	$4.19	$5.81

Winnipeg Flour Prices

Note: Top patent spring wheat flour, delivery between Fort William and the Alberta boundary, average price, per barrel. Source: The Northwestern Miller.

	1950	1949	1948	1947	1946	1945
Jan. $11.30		$ 9.25	$9.20	$5.30	$5.30	$5.20
Feb.	11.30	9.25	9.05	5.30	5.30	5.30
March ..	11.30	9.65	9.05	5.30	5.40	5.30
April ..	11.30	11.23	9.05	5.30	5.40	5.30
May	11.30	11.26	9.05	5.30	5.30	5.30
June	11.30	11.28	9.05	5.30	5.30	5.28
July	11.30	11.28	9.05	5.30	5.30	5.20
Aug.	11.24	11.28	9.13	5.30	5.30	5.20
Sept.	11.15	11.28	9.25	6.32	5.30	5.20
Oct.	11.15	11.29	9.25	9.35	5.30	5.20
Nov.	11.04	11.30	9.25	9.35	5.30	5.30
Dec.	11.00	11.30	9.25	9.35	5.30	5.30
Aver. .$11.23		$10.80	$9.13	$6.38	$5.32	$5.27

Not which one ... ALL contain V-90*!

Of course, they all contain S-L-O-W acting V-90 phosphate because there is no substitute for customer satisfaction . . . no substitute for the outstanding baking performance assured only by V-90! The unique leavening action of V-90 helps you give your customers what they want . . . helps you build repeat sales!

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STIMULATES SALES . . . STIMULATES SALES . . . STIMULATES SALES . . .

State Flour Packaging Laws and Regulations

ALABAMA

Legal sizes limited to packages of less than 5 lb. and packages of 5, 10, 25, 50, 100 and 200 lb. Regulations follow federal practice regarding variations. Flour may be sold at retail in any quantity from bulk stock by merchants, or sold in containers of more than 100 lb. to commercial bakers and blenders, or for export. Label must state net weight and name and address of manufacturer or person responsible for placing the article on the market. Information must be "plainly and conspicuously" marked on outside of package with ingredients given by their common names. Bleached flour must be so labeled. Supervising authority: Dept. of Agriculture and Industries, Montgomery.

ARIZONA

Any size package legal if net weight is correctly shown. Label must state net weight and name and address of manufacturer, jobber or seller. Information, "in clear and distinct English words in legible type" must include grade or class of products. Shrinkage allowance of 2½ % permitted on flour. Supervising authority: Department of Weights and Measures, Phoenix.

ARKANSAS

Any size package legal if net weight is correctly shown. Regulations follow federal practice regarding variations. Label must state net weight and name and address of manufacturer, packer or distributor. If name is not that of the actual manufacturer, it must be qualified by "Manufactured for and packed by," "Distributed by" or other "similar phrase." Label must not be false or misleading in any particular and information must be plainly and correctly stated. Bleached flour must be so labeled. Supervising authority: State Board of Health, Little Rock.

CALIFORNIA

Legal package sizes limited to containers of less than 4 lb. and containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Flour may be sold at retail in any quantity from bulk stock by merchants, or sold in containers of more than 100 lb. to commercial bakers and blenders, or exchanged for wheat by mills grinding for toll, or for export. Label must not be "false or misleading" in any particular. All lettering must be "legible and conspicuous" with the grade or class of product included. Label must state net weight and name and address of manufacturer or person responsible for placing the article on the market. If name is not that of actual manufacturer, it must be preceded by "Packed for," "Distributed by," or equivalent phrase. Variations in weight are permitted if due to "unavoidable leakage, shrinkage, evaporation, waste, or causes beyond the control of the seller acting in good faith." For mill products having no legal moisture standard the packer is required to make "a reasonable weight allowance" at the time of packing to compensate for evaporation due to shrinkage. Bleached flour must be so labeled. Supervising authority: Department of Agriculture, Sacramento.

COLORADO

Legal package sizes limited to containers of less than 5 lb. and containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Flour may be sold at retail direct from bulk, or sold in containers of more than 100 lb. to commercial bakers and blenders, or exchanged for wheat by mills grinding for toll, or for export. Label must not be false or misleading in any particular. Required information must be in the English language and, where printed, in type not smaller than 8 pt. (brevier) capitals. Net weight must be shown with "reasonable tolerance for discrepancies due to different atmospheric conditions allowed." Name and address are not required but if given must be correct and words "Packed by" or "Distributed by" must appear if name is not that of actual manufacturer. Bleached flour must be so labeled. Supervising authority: Food and Drug Division, Department of Public Health, Denver.

CONNECTICUT

Any size package legal if net weight is correctly shown. Label must state net weight and name and address of manufacturer, packer or distributor. If name given is not that of the actual manufacturer, it must be preceded by "Manufactured for and Packed by," or "Distributed by" or equivalent phrase. Regulations authorize tolerance of 12 oz. on 49 lb. sacks and 8 oz. on 24½ lb. Average weight of at least 6 packages must equal weight stated on each. Label must be in the English language and must not be false or misleading in any particular. If any foreign word appears on the label, all required information must be given in the foreign language. Required information must be displayed with sufficient prominence as to render it likely to be read and understood under customary conditions of purchase and use. There are no regulations governing bleached flour. Supervision authority: Commission of Food and Drugs, Hartford.

DELAWARE

Any size package legal if net weight is correctly shown. Standards under the Federal Food, Drug and Cosmetic Act must be observed. Label must be plain and conspicuous with net weight stated. Regulations allow reasonable variations. Bleached flour must be so labeled. Supervising authority: State Board of Health, Dover.

DISTRICT OF COLUMBIA

Any size package legal if net weight is correctly shown. Federal requirements govern label, net weight and bleached flour. Supervising authority: Health Department, Government of the District of Columbia, Washington, D. C.

FLORIDA

Legal package sizes limited to cartons of less than 5 lb. and containers of 2, 5, 10, 25, 50 and 100 lb. Do not apply to flour retailed direct from bulk, sold to the bakery trade or exchanged for wheat. Label must state net weight and name and address of actual manufacturer or distributor in "clearly legible printing or marking." Variations from stated weight are permitted when caused by ordinary and customary exposure, or when caused by unavoidable deviations which normally occur in good distribution practice. Deviations of this kind in any one shipment must be as often above as below, but no unreasonable shortages are permitted. Label must not be false or misleading with required information prominently displayed. Bleached flour must be so labeled. Supervising authority: State Chemist, Department of Agriculture, Tallahassee.

GEORGIA

Legal package sizes limited to cartons of less than 5 lb. containers of 2, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed from bulk, sold in containers of more than 100 lb. to commercial bakers or blenders, exchanged for wheat by mills grinding for toll, or for export. Label must state full net weight of contents with the name and address of manufacturer. Letters and figures indicating net contents are required to be in the "same size of type and color as trade or brand name." No provision made for tolerances or variations. Bleached flour must be so labeled. Flour bleached with nitrogen peroxide is considered to be adulterated. Supervising authority: Food and Feed Division, Department of Agriculture, Atlanta.

IDAHO

Legal package sizes limited to cartons, bags or packages of less than 5 lb. and containers of 2, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, sold in containers of more than 100 lb. to commercial bakers or blenders, exchanged for wheat by mills grinding for toll, or for export. Label must not be "false or misleading in any particular," and is required to be in the English language, in legible type not smaller than 8 pt. heavy gothic capitals. Net weight must be stated and either the name of manufacturer and place of manufacture or name and address of packer or dealer. Bleached flour must be so labeled. Supervising authority: Department of Public Health, Boise.

ILLINOIS

Legal package sizes limited to containers of 2, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or exchanged for wheat by mills grinding for toll, or for export. Label must be printed "plainly and legibly" in English and in type not smaller than 8 pt. brevier capitals, and must include either the name of manufacturer and place of manufacture or name and address of packer or dealer. Names should be "bona-fide" names of individuals or that of a legally incorporated corporation. If any other name is used, the words "Not incorporated" are required. Net weight must be stated on label. Regulations provide for reasonable tolerances. Bleached flour must be so labeled. Supervising authority: Division of Foods and Dairies, Department of Agriculture, 160 N. La Salle, Chicago.

INDIANA

Legal package sizes limited to containers of less than 3 lb. and containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or exchanged for wheat by mills grinding for toll, or for export. Label must state net weight with name and address of manufacturer, packer or distributor. If name is not that of actual manufacturer, it must be qualified by "Manufactured and Packed by," "Distributed by," or similar phrase. Tolerances are provided for loss of weight under conditions similar to federal rules. Label must not be false or misleading in any particular. Information must be shown plainly and conspicuously. Any flour which complies with Federal Food, Drug and Cosmetic Act will comply with state requirements. Bleached flour must be so labeled. Supervising authority: Food and Drug Bureau, State Board of Health, Indianapolis.

IOWA

Legal package sizes limited to containers of 2, 5, 10, 25, 50 or 100 lb. Label must state net weight and name and address of manufacturer, packer or dealer responsible for contents of package. If name is not that of manufacturer, it must be preceded by "Packed for" or "Distributed by" or equivalent phrase. Information must be printed in English in type not smaller than 8 pt. heavy gothic capitals. Variations of net weight permitted if due to atmospheric conditions or if caused by errors occurring "in packing in compliance with good commercial practice." Variations of latter kind must be as often above as below. Bleached flour must be so labeled. Supervising authority: Dairy and Food Division, Department of Agriculture, Des Moines.

KANSAS

Legal package sizes limited to cartons of less than 5 lb. and containers of 2, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold for export, or exchanged for wheat by mills grinding for toll, or sold in containers of more than 100 lb. to commercial bakers or blenders. Label must not be "false or misleading" and must be printed in English with required information shown in type not smaller than 8 pt. brevier capitals. Net weight must be "plainly and correctly" stated on outside of package. Name and address of manufacturer need not be given, but if given must be correctly shown on principal label. If name and address are shown and are not those of the actual manufacturer, they must be preceded by "Packed for," "Distributed by" or an equivalent phrase. Bleached flour must be so labeled. The requirement is identical with federal law. Supervising authority: State Board of Health, Topeka.

KENTUCKY

Legal sizes limited to packages of 2, 5, 10, 25, 50 and 100 lb. Limitations do not apply to flour retailed direct from manufacturer to consumer, nor to flour sold to bakery trade, nor to exchanging wheat for flour, nor to flour packed in cartons of 5 lb. or less. Each container must have its net

Flour Stocks Held by U.S. Mills

Note: In sacks. Source: Bureau of Census, Department of Commerce.

	Wheat flour	Rye flour
1950—		
Dec. 31	5,011,000	91,000
Sept. 30	4,931,000	100,000
June 30	4,635,000	75,000
March 31	4,911,000	97,000
1949—		
Dec. 30	4,945,000	73,000
Sept. 30	4,757,000	78,000
June 30	4,508,000	49,000
March 31	5,485,000	67,000
1948—		
Dec. 31	5,118,000	74,000
Sept. 30	4,802,000	74,000
June 30	4,595,000	100,000
March 31	5,031,000	93,000
1947—		
Dec. 31	5,912,000	107,000
Sept. 30	4,946,000	103,000
June 30	4,384,000	61,367
March 31	5,570,000	73,620

weight, name and address of actual manufacturer printed or plainly marked on it in "letters and figures clearly legible." Bleached flour must be so labeled. Supervising authority: State Department of Health, Frankfort.

LOUISIANA

Any size legal if net weight is correctly shown. Net weight must be shown on label. Regulations follow federal practice with regard to variations. Label must not be "false or misleading" in any particular, and information must be "prominently and conspicuously" displayed. It must contain name and place of business of manufacturer, packer, seller or distributor. If name is not that of the actual manufacturer, it must be qualified by "Manufactured for and Packed by," "Packed for," "Distributed by," or other similar phrase. Address may be the person's principal place of business in lieu of branch plant if statement is not misleading. Label for self-rising flour must show in plain capital letters in English the name and domicile of the manufacturer or dealer, the percentage by weight of each leavening ingredient. Leavening ingredients are limited to 3½% of the self-rising flour. Bleached flour must be so labeled. All enriched flour must be labeled "Enriched Flour." Food manufacturers must register annually with the State Board of Health each product sold in Louisiana. Sample must be supplied on request. Registration fee may not exceed $2.50 for each separate and distinct product, with a maximum of $10 for any one concern. Label specimens must be submitted at time of registration and compliance with the Federal Food, Drug and Cosmetic Act in regard to preparation and packaging will constitute compliance for registration. Supervising authority: State Board of Health, Civil Courts Bldg., New Orleans.

MAINE

Any size package legal if net weight is correctly shown. Label must state net weight. Reasonable variations are permitted. Label must not be false or misleading in any particular with required information "plainly and conspicuously" shown. Place of manufacture must be stated. Bleached flour must be so labeled. Supervising authority: Department of Agriculture, Augusta.

MARYLAND

Any size package legal if net weight is correctly shown. Label must state net weight and place of manufacture. Reasonable variations in weight are permitted. Label requirements are same as those in federal law. Bleached flour must be so labeled. Bleaching which causes damage or conceals inferiority is prohibited. Supervising authority: State Department of Health, Baltimore.

MASSACHUSETTS

Legal package sizes limited to containers of less than 3 lb. and containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or exchange for wheat by mills grinding for toll, or for export. Label must state net weight. Reasonable variations are permitted under conditions similar to those in federal regulations. Label must be "plain and conspicuous"; type must be large enough to be readily seen and clearly legible under ordinary conditions of purchase. Bleached flour must be so labeled. Enriched flour must be labeled "Enriched Flour." Supervising authority: Division of Standards, Department of Labor and Industries, Boston.

MICHIGAN

Legal package sizes limited to containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to containers of less than 5 lb. or to flour and meals retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or exchanged for wheat ground for toll, or for export. Net weight must be shown on principal label in "plain" English words or numerals so that it can be "plainly read." Label must not be false or misleading in any particular. Name and address of manufacturer or distributor must appear on label. Any product containing ground buckwheat or any other cereal product or foreign substances must be distinctly and legibly labeled "Buckwheat Flour Compound" in letters not less than ⅛ in. high. Bleached flour must be so labeled. Supervising authority: Department of Agriculture, Lansing.

MINNESOTA

Legal package sizes limited to containers of less than 3 lb. and containers of 3, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or exchanged for wheat by mills grinding for toll, or for export. Net weight must be "plainly and conspicuously" marked on label. Variations are permitted (1) resulting from errors in weighing which occur in good packing practice (must be as often above as below) and (2) resulting from differences in atmospheric conditions which cause evaporation or absorption of water in ordinary and customary exposure of the packages. Amount of tolerance depends on the facts in each case. Label must not be false or misleading in any particular with required information in English and in type not smaller than 8 pt. brevier caps. Name and address of manufacturer, producer, or person responsible for flour must be given. Words "Packed for," "Distributed by" or an equivalent phrase must appear if name is not that of actual manufacturer. Address may be that of the person's principal place of business instead of branch plant if statement is not misleading. Mixed flour made from different cereals must bear on the label "names of the ingredients plainly stated in order of their predominance and printed in uniform size type." A product which contains both buckwheat flour and another cereal product must be labeled "compound buckwheat and..... flour," or "buckwheat and .....flour mixture." Bleached flour must be so labeled. Supervising authority: Department of Agriculture, Dairy and Food, St. Paul.

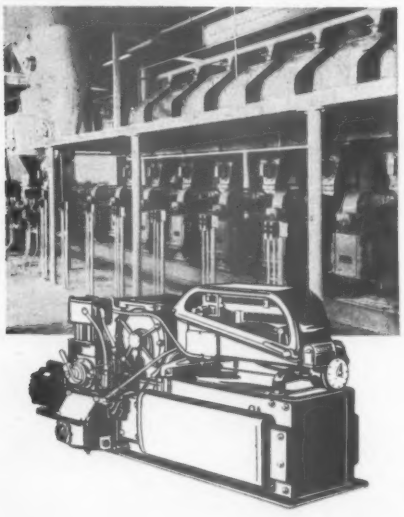
MISSISSIPPI

No regulations regarding specific size packages. Label must be "plain and conspicuous" and must not be false or misleading. Net weight must appear on label with name and address of manufacturer. Supervising authority: State Board of Health, Jackson.

MISSOURI

Legal package sizes limited to containers of less than 3 lb. and containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct

W&T Merchen Scale Feeders— Again Proven by Performance



W&T Merchen Scale Feeders, blending BY WEIGHT once again have proven their worth as reliable, economical feeders.

A typical example of their dependable foolproof operation is shown in the installation pictured. All 9 of these feeders are interlocked for automatic, continuous blending operation. The installation is designed so that if bridging or arching in hoppers occurs or if any feeder is starved of material the entire blending operation will automatically stop – thus protecting the formula. In addition, each feeder motor can be manually operated by push button and as an added safety feature, any power failure will automatically shut down the entire system.

Other major design characteristics of W&T Merchen Scale Feeders include:

CAPACITY—9" Belt—from a few ounces up to 500 pounds per minute. 18" Belt—from a few ounces up to 3000 pounds per minute.

FEED RANGE—a wide range of feed rates and arrangements is possible to accommodate different materials and operating conditions.

FEED REGISTER—permits calculation of total amount fed during any given period.

CONSTRUCTION—sturdy, dust tight and corrosion resistant.

Write now and learn how feeding BY WEIGHT with the W&T Merchen Scale Feeder can cut your feeding costs.

M-8

WALLACE & TIERNAN COMPANY, INC.

CHLORINE AND CHEMICAL CONTROL EQUIPMENT

NEWARK 1, NEW JERSEY • REPRESENTED IN PRINCIPAL CITIES

from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or exchanged for wheat by mills grinding for toll, or sold for export. Net weight must be shown on label. Authorities follow federal practice in regard to variations. Label must not be false or misleading with required information "prominently and conspicuously" displayed. Name and place of business of manufacturer, packer or distributor must be given. If name is not that of actual manufacturer, it must be qualified by "Manufactured for and packed by," "Distributed by" or other similar phrase. Label on mixed flour must show kinds of grain in the mixture and name and address of manufacturer. Bleached flour must be so labeled. Requirements will be met if Federal Food, Drug and Cosmetic Act is followed. Supervising authority: Bureau of Food and Drug Inspection, Division of Health, Jefferson City.

MONTANA

Any size package legal if net weight is correctly shown on label. Label must be in "plain, intelligible words and figures" and must meet federal requirements. Supervising authority: Food and Drugs Division, State Board of Health, Helena.

NEBRASKA

Legal package sizes limited to containers of 5 lb. or less, and containers of 10, 25, 50, 100 and 200 lb. Rye and whole wheat flour must be sold in packages of less than 5 lb. or 5, 10, 25, 50 or 100 lb. Flour "prepared for special purposes" may be sold in other sized packages. Label must not be "deceiving or misleading" to the purchaser. Net weight must be clearly printed on label with name of manufacturer and place of manufacture. Food packages containing gifts, premiums or prizes are deemed to be misbranded. Bleached flour must be so labeled. Supervising authority: Department of Agriculture and Inspection, Lincoln.

NEVADA

Legal package sizes limited to cartons of less than 5 lb. and containers of 2, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers, blenders, or for export, or exchanged for wheat by mills grinding for toll. Label must not be false or misleading in any respect, must bear net weight. Reasonable variations are permitted. Name and place of business of manufacturer must appear on label. If name is not that of actual manufacturer, it must be preceded by "Manufactured for and packed by," "Distributed by" or other equivalent phrase. Bleached flour must be so labeled. Supervising authority: Department of Food and Drug, Public Service Division, University of Nevada, Reno.

NEW HAMPSHIRE

Legal package sizes limited to cartons of less than 5 lb. and containers of 2, 5, 10, 25, 50, 100 and multiples of 100 lbs. Flour may be sold at retail in any quantity from bulk stock, or sold in containers of more than 100 lb. to commercial bakers and blenders, or for export. Label must state net weight. Regulations authorize "reasonable variations." Name and place of business of manufacturer, packer or distributor must appear on label. Law is identical with Federal Food, Drug and Cosmetic Act. Label must not be false or misleading in any particular. Required information must be displayed with sufficient prominence as to render it likely to be read and understood under customary conditions of purchase and use. Bleached flour must be so labeled. Sale of bleached flour is prohibited if bleaching serves to conceal inferiority. Supervising authority: State Board of Health, Concord.

NEW JERSEY

Any size package legal if net weight is correctly shown on label. Reasonable variations are permitted. Label must not be false or misleading in any particular, with information "plain and conspicuous." Label must show name and address of manufacturer, packer or distributor. Unenriched flour, sold to distributors, bakers, or other processors accompanied by a certificate of intent on the part of the purchaser to enrich, must be marked "in a plain and conspicuous manner" with the words, "unenriched flour." Supervising authority: Department of Health, Trenton, also Department of Weights and Measures, Trenton.

NEW MEXICO

Legal package sizes limited to cartons of 2, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export, exchanged for wheat by mills grinding for toll or to flour packed in containers of less than 5 lb. Label must be in letters 1 in. high. Net weight must be stated on package with reasonable tolerances authorized. Bleached flour must be so labeled. Supervising authority: State Department of Public Health, Santa Fe.

NEW YORK

Legal package sizes limited to containers of less than 3 lb. and containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold to commercial bakers, blenders, or for export, or exchanged for wheat by mills grinding for toll. Net weight must be stated on label. Variations of 3% are allowed. Lettering indicating weight must be at least 1/9 in. on packages of less than 10 lb., at least ¼ in. on packages from 10 to 100 lb. and at least ½ in. high on packages of more than 100 lb. Label must include name and place of business of manufacturer, packer or distributor, and must not be false or misleading in any particular. Required information must be displayed with "sufficient prominence as to render it likely to be read and understood under customary conditions of purchase and use." Bleached flour must be so labeled. It is mandatory that all unenriched flour be labeled "Unenriched." Supervising authority: Department of Agriculture and Markets, Albany.

NORTH CAROLINA

Legal sizes limited to packages of 2 lb. or less and packages of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk. Net weight must be shown on label. Reasonable variations allowed. Label must show name and place of business of manufacturers, packer or distributor and must not be false or misleading in any particular. Information must be prominently and conspicuously displayed. Bleached flour must be marked "artificially bleached" in letters not smaller than ⅝ in. in size. Each brand of bleached flour must be registered with the Commissioner of Agriculture for which an annual fee of $15 is charged. Supervising authority: State Chemist, Department of Agriculture, Raleigh.

NORTH DAKOTA

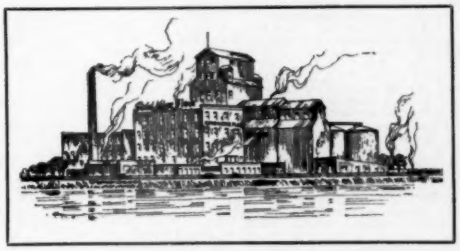
Legal package sizes limited to containers of less than 5 lb. and containers of 2, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export, or exchanged for wheat by mills grinding for toll. Label must be plain and conspicuous and printed in English and must include name and address of either manufacturer, packer or distributor. Net weight must appear on label. Regulations provide for tolerances. Bleached flour must be so labeled. Supervising authority: Division of Foods and Dairies, Department of Agriculture, Columbus.

OKLAHOMA

Legal package sizes limited to cartons of less than 5 lb. and containers of 2, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export, or exchanged for wheat by mills grinding for toll. Net weight must be shown on label. Label must not be false or misleading in any particular. Information must be plainly and correctly stated. Bleached flour must be so labeled. Food manufacturers doing business in Oklahoma must register, annually, firm or corporate names and addresses with the state

QUALITY

"For Over Fifty Years"



King's No. 1 Semolina

Imperial Durum Granular

Imperial Durum Flour

H. H. King Flour Mills Co.

Minneapolis, Minnesota

★ OUR RECORD OF

A Roll Call of the Major Operations in Construction

ACME MILLS, Hopkinsville, Ky.
(1927) Warehouse and 1,000-barrel Mill, Designed, Erected and Machinery Installed

ALBERS MILLING CO.
(1934) Oakland, Cal., 200,000 bushels Concrete Storage
(1934) Seattle, Wash., 530,000 bushels Concrete Storage
(1935) Oakland, Cal., Oatmeal Mill
(1940) Oakland, Cal., 500,000-bushel Elevator

ALLIED MILLS, INC., Taylorville, Ill.
(1949) 650,000-bu. Grain Storage

ANHEUSER-BUSCH, INC., St. Louis, Mo.
(1949) Feed Loadout Building, Malt Storage and Other Engineering Work

ARKANSAS RICE GROWERS CO-OP. ASSN., Stuttgart, Ark.
(1945) Reinforced Concrete Clean Rice Storage
(1946) 600,000-bushel Rice Storage and Driers
(1948) Clean Rice Storage

ARNOLD MILLING CO., Sterling, Kansas
(1929) 100,000-bushel Concrete Elevator

ATCHISON, TOPEKA & SANTA FE RAILWAY CO.
(1933) Morris, Kansas, Concrete Elevator

ATKINSON MILLING CO., Minneapolis, Minn.
(1939) 500,000 bushels Storage
(1941) Bulk Flour Storage
(1947) Tempering and Cleaning House Addition

AUSTIN-HEATON COMPANY, Durham, N. C.
(1949) Grain Elevator

BALLARD & BALLARD CO., Louisville, Ky.
(1930) 750,000 bushels Additional Storage

BARTON COUNTY FLOUR MILLS CO., Great Bend, Kan.
(1927) 75,000-bushel Concrete Elevator
(1931) 137,000 bushels Additional Storage

BAY STATE MILLING CO., Winona, Minn.
(1949) Bag Conveying System and Flour Bins

BLAIR MILLING CO., Atchison, Kansas
(1923) Concrete Mill and Elevator

BURLINGTON ELEVATOR CO., Omaha, Neb.
(1929) 600,000-bushel Concrete Elevator

CANADIAN MILL & ELEVATOR CO., El Reno, Okla.
(1932) Concrete Storage
(1938) Reinforced Concrete Flour Mill Building and Whse.

(1935) 100,000 bushels Storage

CARGILL, INC., Norris City, Ill., Mexia, Texas
(1949) Grain Unloading Facilities

CHICKASHA MILLING CO., Chickasha, Okla.
(1925) 125,000 bushels Storage and Brick Warehouse
(1928) 300-barrel Corn Mill, 300,000-bushel Elevator, Office and Warehouse

A. B. CHRISMAN GRAIN CO., Meredosia, Ill.
(1940) 200,000-bushel Elevator

COMMANDER-LARABEE MILLING CO., Minneapolis, Minn.
(1930) 300,000 bus Additional Storage at Sherman, Texas
(1932) 800,000 bus Concrete Storage at Wellington, Kan.
(1944) Reconstruction of Flour Mill After Explosion at North Kansas City, Mo.
(1948) Bulk Flour Storage and Packing Bldg.

COMMANDER-LARABEE MILLING CO., Clinton, Mo.
(1949) Flour Bins

CONTIMAR—S. A., Buenos Aires, Argentina
(1947) San Nicolas, Argentina, Corn Mill

CORCORAN MILLING CO., Corcoran, Calif.
(1945) 250,000-bushel Concrete Grain Elevator

CRETE MILLS, Crete, Neb.
(1948) Feed Mill

DES MOINES ELEVATOR & GRAIN CO., Des Moines, Iowa
(1930) 350,000 bushels Additional Storage
(1941) 350,000 bushels Additional Storage

DEWEY PORTLAND CEMENT CO. (7 contracts)
Davenport, Iowa, Reinforced Concrete Stock and Pack House and Cement Storage
Dewey, Okla., Rock Storage
(1948) Dewey, Okla., Sack House

DIXIE-PORTLAND FLOUR CO., Higginsville, Mo.
(1944) Concrete Elevator

DIXIE-PORTLAND FLOUR MILLS CO., Richmond, Va.
(1947) 500,000-bushel Grain Elevator

DOBRY FLOUR MILLS, INC., Yukon, Okla.
(1934) 1,000-barrel Flour Mill and Concrete Elevator

DODGE CITY (KANSAS) TERMINAL ELEVATOR CO.
(1929) 500,000-bushel Concrete Elevator

THE DRACKETT CO., Cincinnati, Ohio
(1945) 1,000,000-bushel Concrete Grain Elevator

EAGLE MILLING CO., Edmond, Okla.
(1925) 100,000-bushel Concrete Storage

EARLY & DANIEL CO., Cincinnati, Ohio
(1939) 1,000,000 bushels Storage
(1945) Reinforced Concrete Feed Mill, Indianapolis, Ind.
(1946) Conversion of Corn Driers, Louisville, Ky.

ENID TERMINAL ELEVATOR CO., Enid, Okla.
(1926) 540,000-bushel Concrete Terminal Elevator
(1927) 500,000 bushels Additional Storage
(1931) 720,000 bushels Additional Storage

FAIR OAKS GRAIN DRYING COOP. ASSN., Fair Oaks, Ark.
(1948) Rice Drier

FANT MILLING CO., Sherman, Texas
(1945) Feed Mill Construction

FARMERS NATIONAL GRAIN CORP., Fremont, Neb.
(1931) 480,000 bushels Additional Storage

FEDERAL MILL, INC., Lockport, N. Y.
(1931) 261,000-bushel Concrete Elevator
(1940) Bulk Flour Storage

FLOUR MILLS OF AMERICA, INC., Kansas City, Mo.
(1946) Fort Scott, Kan., New Headhouse and Elevator
(1947) Fort Scott, Kansas, New Packing Plant
(1947) Great Bend, Kansas, 350,000-bushel Elevator
(1947) North Kansas City, Mo., 4,000-sack Flour Mill Unit and Warehouse
(1947) St. Louis, Mo., 1,000,000-bushel Elevator

GALVESTON WHARF CO., Galveston, Texas
(1929) 4,500,000-bushel Concrete Elevator

GARRISON MILLING CO., Oklahoma City, Okla.
(1931) 230,000 bushels Additional Storage
(1941) 250,000 bus Additional Storage

GENERAL MILLS, INC., Minneapolis (1921 to date)
14 Contracts for 10 Elevators with 5,648,000 bus capacity, Flour Mills, Feed Mill, Cleaner House, Bulk Storage, Warehouses and Office Buildings

GLOBE GRAIN & MILLING CO., Ogden, Utah
(1930) 750,000 bushels Additional Storage

GOERZ FLOUR MILLS CO., Newton, Kansas
(1920) Concrete Office
(1923) Concrete Warehouse

RAMON GONZALEZ, Nuevo Laredo Tamps, Mexico
(1926) 200-bbl Reinforced Concrete Flour Mill

GREAT WESTERN SUGAR CO., Ovid, Colo.
(1940) Bulk Sugar Storage

HACKER FLOUR MILLS, Jefferson, Okla.
(1934) Rebuilding Flour Mill Building

HARDEMAN-KING CO., Oklahoma City, Okla.
(1924) Feed Mill, Warehouse and Elevator

HICKORY RIDGE GRAIN DRYING COOP. ASSN., Hickory Ridge, Ark.
(1948) Rice Storage

HIRAM WALKER & SONS, INC., Peoria, Illinois
(1944) 1,100,000-bushel Elevator

HONEYMEAD PRODUCTS CO., Cedar Rapids, Iowa
(1940) 300,000-bushel Elevator

HOUSTON MILLING CO., Houston, Texas
(1925) 800,000 bushels Concrete Storage
(1936) 500,000 bushels Additional Storage
(1940) Reconstruction following explosion

IGLEHEART BROS., INC., Vincennes, Ind.
(1940) Corn Shelling Plant

INLAND MILLING CO., Des Moines, Iowa
(1928) 128,000 bushels Additional Storage
(1936) 250,000 bushels Additional Storage

INTERNATIONAL MILLING CO., Mpls. (1926 to date)
Eleven Contracts for Nine Elevators and Additions with Storage Capacity of 7,525,000 bushels

INTERNATIONAL MILLING CO., Salina, Kansas
(1949) Warehouse Plans

INTERNATIONAL MILLING CO., North Kansas City, Mo.
(1949) Warehouse and Office Plans

JONESBORO GRAIN DRYING COOP. ASSN., Jonesboro, Arkansas
(1948) Rice Drier

KANSAS ELEVATOR CO., Topeka, Kansas
(1945) Remodeling Elevator and Installing Drier

WILLIAM KELLY MILLING CO., Hutchinson, Kansas
(1925) 250,000 bushels Storage Bins
(1927) 250,000 bushels Additional Storage

KIMBELL MILLING CO., Fort Worth, Texas, and Associated Companies (1924 to date)
10 Contracts for 9 Elevators and Additions with 4,526,000 bushels capacity, Fireproof Warehouse

KIMBELL MILLING CO., Fort Worth, Texas
(1949) 2,000,000-bu. Grain Storage

W. J. LAWTHER MILLS, Dallas, Texas (two contracts)
(1924 and 1928) Feed Mill Elevator

H. D. LEE FLOUR MILLS CO., Salina, Kansas
(1923) 300,000-bushel Elevator and Tempering Bins

LEVAL & COMPANY, Minneapolis, Minn.
(1941) 1,450,000-bushel Elevator

McGEHEE GRAIN DRYING COOP. ASSN., McGehee, Ark.
(1948) Rice Drier

MILLER MALTING CO., Los Angeles, Cal.
(1938) 250,000-bushel Elevator and Complete Barley Malting Plant

JONES - HETTELSATER

(AND ASSOCIATED

1911 BALTIMORE AVE.

Inquire of these concerns about our work

THIRTY-ONE YEARS ★

for the Milling, Grain and Related Industries

(1941) 225,000-bushel Elevator
(1944) Addition to Malting Plant
(1947) 500,000-bushel Grain Storage, New Malt House

MILLSTREAM CEREAL COMPANY, Bonner Springs, Kan.
(1948) Plans for Corn Meal Mill

M. F. A. CO-OP. GRAIN & FEED CO., INC., Mexico, Mo.
(1945) Reinforced Concrete Grain Elevator and Drier

M. F. A. MILLING CO., Aurora, Mo.
(1945) Remodeling Feed Mill

MISSISSIPPI GLASS CO., St. Louis, Mo.
(1949) Bins for Raw Materials

MISSOURI PORTLAND CEMENT CO., Kansas City, Mo.
(1936) Additional Cement Storage
(1940) New Packing Plant
(1941) Additional Plant Improvements

MONTANA FLOUR MILLS CO., Cleveland, Ohio
(1936) 500,000-bushel Concrete Elevator

MOUNTAIN CITY MILL CO., INC., Chattanooga, Tenn.
(1941) 500,000-bushel Elevator

NATIONAL OATS CO., E. St. Louis, Ill.
(1945) 363,000-bushel Reinforced Concrete Elevator

NEBRASKA CONSOLIDATED MILLS CO., Omaha, Neb.
(1935) 350,000-bushel Elevator at Grand Island, Neb.
(1940) Flour Mill Building and Warehouses and 250,-000-bushel Elevator at Decatur, Ala.

NORTHWEST LINSEED CO., Minneapolis, Minn.
(1947) 300,000-bushel Grain Storage

WILLIS NORTON CO., Wichita, Kansas
(1928) 500,000 bushels Additional Storage

OKLAHOMA WHEAT POOL ELEV. CORP., Enid, Okla.
(1930) 1,000,000-bushel Concrete Elevator

PACIFIC CO-OP. POULTRY PRODUCERS, Eugene, Oregon
(1945) Reinforced Concrete Feed Mill and Elevator

PARIS MILLING CO., Paris, Texas
(1927) 200,000 bushels Concrete Storage

PEARLSTONE MILL & ELEVATOR CO., Dallas, Texas
(1922) 175,000-bushel Concrete Elevator
(1923) 140,000 bushels Additional Storage
(1925) 300-barrel Corn Meal Mill
(1927) 300,000 bushels Additional Storage

PERMANENTE CORPORATION, Redwood City, Cal.
(1941) Cement Silos

PILLSBURY MILLS, INC., Lima Ohio
(1949) 500,000-bu. Grain Storage

PILLSBURY MILLS, INC., Minneapolis (1928 to date)
7 Elevators, with 6,630,000 bushels capacity, 2 Flour Mills, Cereal Plant, Bulk Flour Storage, Warehouses and Feed Mills
(1948) Ogden, Utah. Remodeling Flour Packing Plant

PITTSBURGH PLATE GLASS CO., Crystal City, Mo.
(1949) Bins for Raw Materials

PONCA CITY MILLING CO., Ponca City, Okla.
(1922) 65,000-bushel Concrete Elevator
(1930) 350,000 bushels Additional Storage

PORT OF BOSTON AUTHORITY, Hoosac Pier, Charlestown, Mass.
(1949) Improvements to Port Elevator

POULTRY PRODUCERS OF CENTRAL CALIFORNIA, Petaluma, Calif.
(1937) 500,000-bu Elevator, Feed Mill and Warehouses

POULTRYMEN'S CO-OPERATIVE ASS'N OF SOUTHERN CALIFORNIA, Los Angeles, Cal.
(1941) 250,000-bushel Elevator

E. G. RALL GRAIN CO., Fort Worth, Texas
(1924) 200,000-bushel Concrete Storage
(1929) 200,000 bushels Additional Storage

RALSTON PURINA CO., St. Louis, Mo. (1924-1940)
12 Elevators or Additions for 3 Feed Mills, 4 Warehouses, 12 Elevators or Additions, with Storage capacity of 2,435,000 bushels, Office Buildings
(1941) Soybean Plant, Iowa Falls
(1944) Remodeling of Certain Structures at Kansas City for Soybean Processing
(1945) Reinforced Concrete Grain Storage and Feed Mill at Wilmington, Del.
(1946) Iowa Falls, Iowa, 800,000-bushel Grain Elevator
(1946) St. Johnsbury, Vermont, New Feed Mill

ROANOKE CITY MILLS, INC., Roanoke, Va.
(1935) 150,000 bushels Storage
(1944) Reinforced Concrete Feed Mill

RODNEY MILLING CO., Kansas City, Mo.
(1931) 363,000 bushels Additional Storage
(1936) 400,000 bushels Additional Storage

RUSSELL MILLING CO., Russell, Kansas
(1923) Tempering Bins and Cleaner House
(1923) 30,000-bushel Concrete Elevator at Balta, Kansas
(1928) 100,000 bushels Additional Storage

RUSSELL-MILLER MILLING CO., Alton, Illinois
(1946) 10,000-sack Flour Mill and 1,000,000-bu. Elevator

RUSSELL-MILLER MILLING COMPANY, Dallas, Texas
(1947) Flour Storage and Packing Plant

SCHULTZ, BAUJAN & CO., Beardstown, Ill.
(1948) Feed Mill

SCOTT COUNTY MILLING CO., Sikeston, Mo.
(1940) 300,000-bushel Elevator

SECURITY ELEVATOR CO., Hutchinson, Kansas
(1925) 200,000 bushels Storage Bins
(1928) 350,000 bushels Additional Storage
(1929) 650,000 bushels Additional Storage

SHAWNEE MILLING CO., Shawnee, Okla.
(1920) 300,000-bushel Concrete Elevator
(1931) 220,000 bushels Additional Storage
(1934) 1,000-barrel Flour Mill

SOUTHWEST TERMINAL ELEVATOR CO., Enid, Okla.
(1926) 540,000-bushel Reinforced Concrete Terminal Grain Elevator
(1927) 500,000 bushels Additional Storage

SPENCER KELLOGG & SONS, INC., Decatur, Ill.
(1939) 1,000,000 bushels Storage

A. E. STALEY MFG. CO., Decatur, Ill.
(1939) 2,500,000 bushels Storage

STANDARD MILLING CO., Kansas City, Kansas
(1947) Flour Storage and Packing Plant

THEO. STIVERS MILLING CO., Rome, Ga.
(1930) 600-barrel Concrete Flour Mill

SUTTER BASIN GROWERS' CO-OPERATIVE, Knights Landing, Cal. 350,000-barrel Concrete Elevator

TERMINAL GRAIN CORP., Sioux City, Iowa
(1928) 500,000 bushels Additional Storage
(1941) 500,000 bushels Additional Storage

TEX-O-KAN FLOUR MILLS CO. (Dallas) PROPERTIES
(1929 to date) 2 Flour Mills, 2 Elevators of Million bu. Each and One Storage Addition of 300,000 bu.

UNITED MILLS CO., Grafton, Ohio
(1931) 300,000-bushel Concrete Elevator
(1936) 300,000 bushels Storage

UNITED STATES ARMY
(1942-44) Construction at Various Military Installations

V-O MILLING CO., Los Angeles, Cal.
(1933) 500,000-bushel Concrete Elevator, Warehouses and 800-barrel Flour Mill
(1937) Concrete Flour Storage, Blending Plant and Grain Storage

WALL-ROGALSKY MILLING CO., McPherson, Kansas
(1928) 150,000 bushels Additional Storage

WALNUT CREEK MILLING CO., Great Bend, Kansas
(1922) 250,000-bushel Concrete Elevator

WASHINGTON CO-OPERATIVE FARMERS ASSN., Tacoma, Wash.
(1947) Feed Mill

WEINER GRAIN DRYING COOP. ASSN., Weiner, Ark.
(1948) Rice Drier

WESTERN COTTONOIL CO., Abilene, Texas
(1949) Feed Mill Remodeling

WESTERN TERMINAL ELEVATOR CO., Hutchinson, Kan.
(1927) 250,000-bushel Concrete Elevator
(1928) 300,000 bushels Additional Storage
(1930) 600,000 bushels Additional Storage

J. C. WHALEY ELEVATOR, Lubbock, Texas
(1927) 500,000-bu Concrete Elevator and Head House

WHEATLEY GRAIN DRYING COOP. ASSN., Wheatley, Ark.
(1948) Rice Drier

1950

Albers Milling Co., Kansas City. Improvements to Mill and Warehouse

Allied Mills, Inc., Peoria, Ill. Warehouse and Bag Conveying System.

Barrus Flour Mills, S. A., Havana, Cuba. Plans for Flour and Feed Milling Plant

Commander-Larabee Milling Co., North Kansas City, Mo. Laboratory Improvements. Wellington, Kansas, Rebuilding Feed Mill

Flour Mills of America, Inc., St. Louis. Flour Storage, Packing and Loading Plant

General Mills, Inc., El Reno, Okla. 400,000-bu. Storage

International Milling Co., Salina, Kansas. Plans for Flour Storage, Packing and Loading Plant

M. F. A. Feed & Grain Co., Mexico, Mo. 400,000-bu. Grain Storage

Morrison Milling Co., Denton, Texas. Completion of Elevator

Ralston Purina Co., Bloomington, Ill. Warehouse Addition; Delmar, Del., Feed Plant; Kansas City, Bag Conveying System; Macon, Ga., Feed Plant; Richmond, Ind., Feed Plant

CONSTRUCTION COMPANY

COMPANIES)

KANSAS CITY 8, MO.

Inquire of these concerns about our work

commissioner of health. Fee, $1 due by July 1. Manufacturers who have paid merchant's license fee of $1 per year are exempt. Supervising authority: State Department of Health, Oklahoma City.

OREGON

Legal package sizes limited to containers of 1, 2, 5, 10, 25, 50, 100 and 200 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export, or exchanged for wheat by mills grinding for toll. Net weight must be stated on label. Name and address of manufacturer, packer or distributor must appear on label which must not be false or misleading in any particular. Required information must be conspicuously displayed. Bleached flour must be so labeled. Supervising authority: Division of Foods and Dairies, State Department of Agriculture, Salem.

PENNSYLVANIA

Legal package sizes limited to containers of less than 3 lb. and containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export, or exchanged for wheat by mills grinding for toll. Required information must "be prominently displayed in a plain, conspicuous, legible manner on the main label panel." Net weight must be plainly and conspicuously marked on outside of package. Authorities require word "net" to be used. There is a provision for tolerances, but before tolerances are granted "producers and manufacturers of commodities must make written application for a tolerance to the department and must furnish written proof that the use value of the commodity will not be affected by the granting of the tolerance." Label must contain name and address of the manufacturer, packer or distributor. Name used must be preceded by "manufactured by," "packed by," "distributed by," or "packed for," as the case may be or followed by "Manufacturer," "Packer," "Wholesale Dealer," or "Distributor," as the case may be. Dealers and distributors whose names appear on food packages are required to maintain for five years a record of name and address of manufacturer or packer. Private brand goods are also required to carry a code marking which will identify to the wholesaler or distributor the name and address of the manufacturer or packer of any given package. Distributors or wholesalers are required to keep records of these code markings for five years. Bleached flour must be so labeled. Supervising authority: Bureau of Standards and Measures, Department of Internal Affairs, Harrisburg; also Department of Agriculture, Harrisburg.

RHODE ISLAND

Any size package legal if net weight is correctly shown. Net weight must be shown on label; reasonable tolerances are provided for. Federal requirements govern label. Bleached flour must be so labeled. Supervising authority: Division of Food and Drug Control, Department of Health, Providence.

SOUTH CAROLINA

Legal package sizes limited to cartons of less than 5 lb. and containers of 2, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export, or exchanged for wheat by mills grinding for toll. Net weight must be "plainly marked" on label. Letters and figures must be at least 1 in. in length. No tolerances are allowed. Label must not be false or misleading in any particular. Information must be "plain and correct." Bleached flour must be so labeled. Supervising authority: Department of Agriculture, Columbia.

SOUTH DAKOTA

Legal package sizes limited to cartons of less than 5 lb. and containers of 2, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export, or exchanged for wheat by mills grinding for toll. Net weight must be shown on label. Regulations follow federal practice with regard to variations. Label must contain name and address of manufacturer, jobber, wholesaler or other person responsible for placing article on market. If manufacturer produces a food in more than one plant, actual place of manufacture of each package need not be stated on label unless location named is misleading. Label must be "plain and conspicuous." Bleached flour must be so labeled with word "Bleached" printed in capital letters Supervising authority: Department of Agriculture, Pierre.

TENNESSEE

Legal package sizes limited to containers of 2, 5, 10, 25, 50, 100 and multiples of 100 lb. Buckwheat, wholewheat, pancake, prepared biscuit and cake flours may be sold in packages of 5 lb. or less. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export, or exchanged for wheat by mills grinding for toll. Net weight must be shown on label. Reasonable variations are allowed. Label must not be false or misleading in any particular. Required information must be "prominently and conspicuously" displayed. Bleached flour must be so labeled. Supervising authority: Division of Foods, Drugs and Dairies, Department of Agriculture, Nashville.

TEXAS

Legal sizes limited to packages of 2, 5, 10, 25, 50, 100, 150 and 200 lb. Specialty flours may be packed in any size package of 5 lb. or less. Limitations do not apply to flour retailed direct from bulk, or sold to bakeries for exclusive use in the bakeries or exchanged for wheat by mills grinding for toll. Net weight must be stated on label. Regulations follow federal practice regarding variations. Label must be "printed or plainly marked in letters and figures clearly readable." Information must be plainly and conspicuously displayed and must not be false or misleading in any particular. Name of manufacturer (person, firm, association or corporation which processes the wheat or other cereal into flour) and the name of the place where milled must appear on label. Bleached flour must be so labeled. All manufacturers of food doing business in Texas must register annually by September 1 with the State Health Officer, Austin; fee, $1. Supervising authority: State Department of Health, Austin; also Division of Weights and Measures, State Department of Agriculture, Austin.

UTAH

Legal package sizes limited to cartons of less than 5 lb. and containers of 2, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or sold for export, or exchanged for wheat by mills grinding for toll. Net weight must be stated on label. "Reasonable variation and tolerance" allowed. Label must not be false or misleading in any particular. Information must be "plain and conspicuous." Bleached flour must be so labeled. Supervising authority: Dairy and Food Division, Department of Agriculture, Salt Lake City.

VERMONT

Any size package legal if net weight is correctly shown. Net weight must be shown on label. There is provision for reasonable tolerances. Label must be plain and conspicuous and must not be false or misleading in any particular. Name and place of business or manufacturer, packer or distributor must appear on label. If name is not that of actual manufacturer, it must be qualified by "Packed for," "Distributed by" or other similar phrase. If label meets federal requirements it is satisfactory. Bleached flour must be so labeled. Supervising authority: State Department of Health, Burlington, and State Department of Agriculture, Montpelier.

VIRGINIA

Legal sizes limited to packages of 3 lb. or less, and packages of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or exchanged for wheat by mills grinding for toll. Net weight must be shown immediately above or below the principal label. Reasonable variations permitted. Label must not be false or misleading in any particular. Information must be "plain and conspicuous." Label must contain name and place of business of the manufacturer, packer or distributor. Bleached flour must be so labeled. Supervising authority: Division of Dairy and Foods, Department of Agriculture and Immigration, Richmond.

WASHINGTON

Legal package sizes limited to containers of less than 5 lb. and containers of 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export or exchanged for wheat by mills grinding for toll. Net weight must be shown on label. Regulations follow federal practice with regard to variations. Label

KNAPPEN MILLING COMPANY

AUGUSTA, MICHIGAN

Michigan Soft Wheat

"Satin White"

and

"Sunlite" Flours

Complete Grain and Feed Service

must not be false or misleading in any particular. Required information must be prominently and conspicuously displayed and printed in English. Type size must not be smaller than 8-point (brevier) capitals. Label must contain name and place of business of manufacturer, packer and distributor. Bleached flour must be so labeled. Supervising authority: Department of Agriculture, Olympia.

WEST VIRGINIA

Legal package sizes limited to cartons of less than 5 lb. and containers of 2, 5, 10, 25, 50, 100 and multiples of 100 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export or exchanged for wheat by mills grinding for toll. Net weight must be stated on label. Tolerance permitted is ½ of 1%. Label must be in a conspicuous place in legible type and of sufficient size to be easily read. Bleached flour must be so labeled. Supervising authority: Department of Agriculture, Charleston; also Division of Weights and Measures, Department of Labor, Charleston.

WISCONSIN

Legal package sizes limited to containers of 2, 5, 10, 25, 50, 100 and 200 lb. Specialty cake and pancake making flours may also be packed in containers of less than 2 lb. Limitations do not apply to flour retailed direct from bulk, or sold in containers of more than 100 lb. to commercial bakers or blenders, or for export or exchanged for wheat by mills grinding for toll. Net weight must be shown on label. Reasonable tolerances permitted. Information on label must be plain and conspicuous. Name and address of manufacturer, packer or dealer must appear on outside of package. Bleached flour must be so labeled. Supervising authority: Department of Agriculture, Madison.

WYOMING

Any size package legal if net weight is correctly shown. Net weight must be shown on label. Variations permitted within "reasonable limits." Label must be in a conspicuous place and of sufficient size to be readily seen by the purchaser. Name and address of manufacturer or distributor is required to appear on label. Bleached flour must be so labeled. Supervising authority: State Department of Agriculture, Cheyenne.

Regulations Covering Milling in Bond

The following summary gives the text of the sections of the U.S. tariff act of 1930 relating to the grinding of wheat in bond, and also brief notes as to the regulations of the Department of the Treasury in connection with the administration of these sections of the law.

Sec. 311. All articles manufactured in whole or in part of imported materials, or of materials subject to internal-revenue tax, and intended for exportation without being charged with duty, and without having an internal-revenue stamp affixed thereto, shall, under such regulations as the Secretary of the Treasury may prescribe, in order to be so manufactured and exported, be made and manufactured in bonded warehouses similar to those known and designated in Treasury Regulations as bonded warehouses, class six: Provided, That the manufacturer of such articles shall first give satisfactory bonds for the faithful observance of all the provisions of law and of such regulations as shall be prescribed by the Secretary of the Treasury:

Whenever goods manufactured in any bonded warehouse established under the provisions of the preceding paragraph shall be exported directly therefrom or shall be duly laden for transportation and immediate exportation under the supervision of the proper officer who shall be duly designated for that purpose, such goods shall be exempt from duty and from the requirements relating to revenue stamps.

No flour, manufactured in a bonded manufacturing warehouse from wheat imported after 90 days after the date of the enactment of this Act, shall be withdrawn from such warehouse for exportation without payment of a duty on such imported wheat equal to any reduction in duty which by treaty will apply in respect to such flour in the country to which it is to be exported.

[Note.—An Act of Congress approved June 12, 1934, amends the Tariff Act of 1930 by adding thereto a new provision (Sec. 350) authorizing the President, among other things, to enter into trade agreements with foreign governments. The act of 1934, however, limited the President's authority to enter into foreign trade agreements to a period of three years from the date of the enactment of the act (that is, 3 years from June 12, 1934), but this authority has been extended from time to time and last such extension expires June 12, 1951. Section 2 of the Act of 1934 relates in part to the application of the third paragraph of Section 311 quoted above. "The third paragraph of Section 311 of the Tariff Act of 1930 shall apply to any agreement concluded pursuant to this act to the extent only that such agreement assures to the U.S. a rate of duty on wheat flour produced in the U.S. which is preferential in respect to the lowest rate of duty imposed by the country with which such agreement has been concluded on like flour produced in any other country; and upon the withdrawal of wheat flour from bonded manufacturing warehouses for exportation to the country with which such agreement has been concluded, there shall be levied, collected and paid, on the imported wheat used, a duty equal to the amount of such assured preference."]

Any materials used in the manufacture of such goods, and any packages, coverings, vessels, brands and labels used in putting up the same may, under the regulations of the Secretary of the Treasury, be conveyed without the payment of revenue tax or duty into any bonded manufacturing warehouse, and imported goods may, under the aforesaid regulations, be transferred without the exaction of duty from any bonded warehouse into any bonded manufacturing warehouse; but this privilege shall not be held to apply to implements, machinery, or apparatus to be used in the construction or repair of any bonded manufacturing warehouse or for the prosecution of the business carried on therein.

Articles or materials received into such bonded manufacturing warehouse or articles manufactured therefrom may be withdrawn or removed therefrom for direct shipment and exportation or for transportation and immediate exportation in bond to foreign countries or to the Philippine Islands under the supervision of the officer duly designated therefor by the collector of the port, who shall certify to such shipment and exportation, or ladening for transportation, as the case may be, describing the articles by their mark or otherwise, the quantity, the date of exportation, and the name of the

Complete

BAKERY FLOUR SERVICE

- *Spring Wheat FLOURS*
- *Hard Wheat FLOURS*
- *Rye FLOURS*
- *Soft Wheat, Cake, Pastry and Cracker FLOURS*

B. A. ECKHART MILLING CO.

1300 W. Carroll — Chicago, Illinois

vessel: Provided, That the by-products incident to the processes of manufacture, including waste derived from cleaning rice in bonded warehouses under the act of March 24, 1874, in said bonded warehouses may be withdrawn for domestic consumption on the payment of duty equal to the duty which would be assessed and collected by law if such waste or by-products were imported from a foreign country: Provided, That all waste material may be destroyed under government supervision. All labor performed and services rendered under these provisions shall be under the supervision of a duly designated officer of the customs and at the expense of the manufacturer.

A careful account shall be kept by the collector of all merchandise delivered by him to any bonded manufacturing warehouse, and a sworn monthly return, verified by the customs officers in charge, shall be made by the manufacturer containing a detailed statement of all imported merchandise used by him in the manufacture of exported articles.

Before commencing business the proprietor of any manufacturing warehouse shall file with the Secretary of the Treasury a list of all the articles intended to be manufactured in such warehouse, and state the formula of manufacture and the names and quantities of the ingredients to be used therein.

Articles manufactured under these provisions may be withdrawn under such regulations as the Secretary of the Treasury may prescribe for transportation and delivery into any bonded warehouse at an exterior port for the sole purpose of immediate export therefrom.

The provisions of Section 3433 of the Revised Statutes shall, so far as may be practicable, apply to any bonded manufacturing warehouse established under this Act and to the merchandise conveyed therein.

Sec. 555. Bonded Warehouses. Buildings or parts of buildings and other inclosures may be designated by the Secretary of the Treasury as bonded warehouses for the storage of imported merchandise entered for warehousing, or taken possession of by the collector, or under seizure, or for the manufacture of merchandise in bond, or for the repacking, sorting or cleaning of imported merchandise. Such warehouses may be bonded for the storing of such merchandise only as shall belong or be consigned to the owners or proprietors thereof and be known as private bonded warehouses, or for the storage of imported merchandise generally and be known as public bonded warehouses. Before any imported merchandise not finally released from customs custody shall be stored in any such premises, the owner or lessee thereof shall give a bond in such sum and with such sureties as may be approved by the Secretary of the Treasury to secure the Government against any loss or expense connected with or arising from the deposit, storage or manipulation of merchandise in such warehouse. Except as otherwise provided in this Act, bonded warehouses shall be used solely for the storage of imported merchandise and shall be placed in charge of a proper officer of the customs, who, together with the proprietor thereof, shall have joint custody of all merchandise stored in the warehouse; and all labor on the merchandise so stored shall be performed by the owner or proprietor of the warehouse, under supervision of the officer of the customs in charge of the same, at the expense of the owner or proprietor. The compensation of such officer of the customs and other customs employees appointed to supervise the receipt of merchandise into any such warehouse and deliveries therefrom shall be reimbursed to the Government by the proprietor of such warehouse.

Owing to the many provisions and the changes in regulations prescribed by the Department of the Treasury for bonded manufacturing warehouses, any miller desiring to grind wheat in bond should apply to the Secretary of the Treasury for the latest regulations on the subject. In general, the regulations prescribe that buildings or parts of buildings and other inclosures may be designated as bonded manufacturing warehouses. The amount of the bond depends on the quantity of imported wheat handled. It is necessary that a customs storekeeper be present at all times while the warehouse is in operation, and the proprietor is required to reimburse the government for the storekeeper's salary.

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Choice hard and soft winter wheats to fill the most exacting milling requirements. We offer complete coverage of all major wheat growing areas. We originate wheat from our 56 country elevators in four southwestern states and maintain large terminal storage facilities. Total elevator capacity over 8,500,000 bushels. Call us for your wheat and coarse grain requirements.

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GRAIN COMPANY
KANSAS CITY

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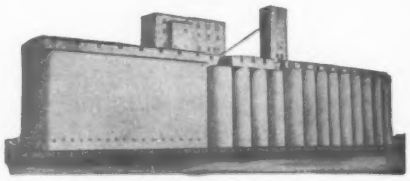
TOTAL SOUTHWESTERN
ELEVATOR CAPACITY
8,500,000 BUSHELS



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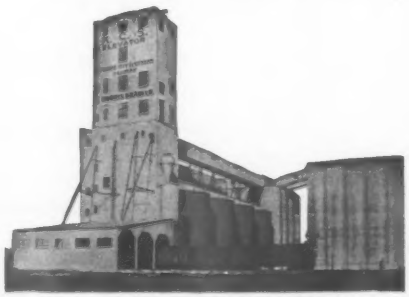
Capacity 2,800,000 Bus.

BURLINGTON ELEVATOR
Capacity 2,500,000 Bus.



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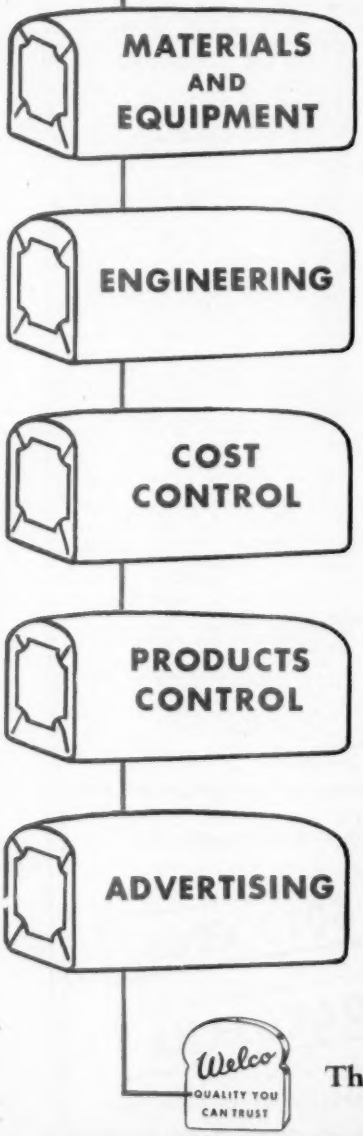

FOR DEPENDABLE RESULTS, use materials and equipment that are laboratory proved and bakery tested. No matter what your requirements, from a new oven to wrappers and end seals of distinction, The W. E. Long Co. can furnish the best at the lowest possible price. Buy WELCO for QUALITY YOU CAN TRUST.

FOR EFFICIENT PRODUCTION, expert overall planning is a "must". If you're planning a completely new building program, or just an expansion of your present facilities, The W. E. Long Company's experienced bakery engineers will help you make sure your plan is "right".

FOR PROFITABLE OPERATION, you must slash costs to the minimum. The W. E. Long Company's Comparative Cost Report will show you exactly what your costs are and how they compare with other bakers. The Long Company's Accounting service is directed by bakery accounting specialists who KNOW bakery operation.

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The W. E. Long Co., 188 W. Randolph St., Chicago 1, Ill.

HOLSUM — BETSY ROSS — AUNT HATTIE — OLD HOME — TOWN TALK

Definitions and Standards of Identity for Flour

Definitions and standards of identity for wheat flour and related products were promulgated in 1941 by the Federal Security Agency, effective Jan. 1, 1942, under the Federal Food, Drug and Cosmetic Act of 1938. Previously it had been the responsibility of the Secretary of Agriculture to provide standards of identity for flour under the Federal Food and Drug Act of 1906, but standards thus established were informal and without the force and effect of law. The act of 1938 not only broadened the government's pure food activities but greatly enlarged its regulatory powers. The definitions and standards of identity were amended in 1943 to cover the enrichment of flour, and were again amended, effective Oct. 21, 1948, legalizing the use of potassium bromate in flour regardless of the protein content of the flour. Effective Feb. 25, 1949, chlorine dioxide was made an optional ingredient in substitution for nitrogen trichloride (Agene), use of which was prohibited after Aug. 1, 1949.

The definitions and standards of identity for wheat flour, as amended, are as follows:

Section 15.00. **Flour, white flour, wheat flour, plain flour; identity; label statement of optional ingredients.** (a) Flour, white flour, wheat flour, plain flour, is the food prepared by grinding and bolting cleaned wheat other than durum wheat and red durum wheat; to compensate for any natural deficiency of enzymes, malted wheat, malted wheat flour, malted barley flour, or any combination of two or more of these, may be used; but the quantity of malted barley flour so used is not more than 0.25%. One of the cloths through which the flour is bolted has openings not larger than those of woven wire cloth designated "149 micron (No. 100)" in Table I of "Standard Specifications for Sieves," published March 1, 1940, in L. C. 584 of the U. S. Department of Commerce, National Bureau of Standards. The flour is freed from bran coat, or bran coat and germ, to such extent that the per cent of ash therein, calculated to a moisture-free basis, is not more than the sum of one twentieth of the per cent of protein therein, calculated to a moisture-free basis, and 0.35. Its moisture content is not more than 15%. Unless such addition conceals damage or inferiority of the flour or makes it appear better or of greater value than it is, one or any combination of two or more of the following optional bleaching ingredients may be added in a quantity not more than sufficient for bleaching or, in case such ingredient has an artificial aging effect, in a quantity not more than sufficient for bleaching and such artificial aging effect:

(1) Oxides of nitrogen.
(2) Chlorine.
(3) Nitrosyl chloride.
(4) Chlorine dioxide.
(5) One part by weight of benzoyl peroxide mixed with not more than six parts by weight of one or any mixture of two or more of the following: potassium alum, calcium sulfate, magnesium carbonate, sodium aluminum sulfate, dicalcium phosphate, tricalcium phosphate, starch, calcium carbonate.

(b) When any optional bleaching ingredient is used, the label shall bear the word "Bleached." Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the word "Bleached" shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter; except that where such name is a part of a trademark or brand, other written, printed, or graphic matter, which is also a part of such trademark or brand, may so intervene if the word "Bleached" is in such juxtaposition with such trademark or brand as to be conspicuously related to such name.

(c) For the purposes of this section:

(1) Ash is determined by the method prescribed in the book "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," 5th edition, 1940, page 212, under "Method I —Official." (Ed. note: 6th Ed., 1945, p. 238.) Ash is calculated to a moisture-free basis by subtracting the per cent of moisture in the flour from 100, dividing the remainder into the per cent of ash, and multiplying the quotient by 100.

(2) Protein is 5.7 times the nitrogen as determined by the method prescribed in such book on page 26, under "Kjeldahl-Gunning-Arnold Method — Official." (Ed. note: 6th Ed., 1945, p. 27.) Protein is calculated to a moisture-free basis by subtracting the per cent of moisture in the flour from 100, dividing the remainder into the per cent of protein, and multiplying the quotient by 100.

(3) Moisture is determined by the method prescribed in such book on page 211, under "Vacuum Oven Method — Official." (Ed. note: 6th Ed., 1945, p. 237.)

Sec. 15.10. **Enriched flour; identity; label statement of optional ingredients.** Enriched flour conforms to the definition and standard of identity, and is subject to the requirements for label statement of optional ingredients, prescribed for flour by Section 15.00, except that:

(a) It contains in each pound not less than 2.0 milligrams and not more than 2.5 milligrams of thiamine, not less than 1.2 milligrams and not more than 1.5 milligrams of riboflavin, not less than 16.0 milligrams and not more than 20.0 milligrams of niacin or niacin amide, not less than 13.0 milligrams and not more than 16.5 milligrams of iron (Fe);

Note: As amended July 1, 1943; 8 F.R. 9115. (The above riboflavin requirement, after postponement, 6 F.R. 6175, 7 F.R. 3055, 8 F.R. 3358, became effective Oct. 1, 1943, 8 F.R. 9115.)

(b) Vitamin D may be added in such quantity that each pound of the finished enriched flour contains not less than 250 U. S. P. units and not more than 1,000 U. S. P. units of vitamin D;

(c) Calcium may be added in such quantity that each pound of the finished enriched flour contains not less than 500 milligrams and not more than 625 milligrams of calcium (Ca), except that enriched flour may be acidified with monocalcium phosphate irrespective of the minimum limit for calcium (Ca) herein prescribed;

(d) It may contain not more than 5% by weight of wheat germ or partly defatted wheat germ, and

(e) In determining whether the ash content complies with the requirements of this section allowance is made for ash resulting from any added iron or salts of iron or calcium.

Iron and calcium may be added only in forms which are harmless and assimilable. The substances referred to in paragraphs (a) and (b) of this section may be added in a harmless carrier which does not impair the enriched flour; such carrier is used only in the quantity necessary to effect an intimate and uniform admixture of such substances with the flour.

Sec. 15.20. **Bromated flour; identity; label statement of option ingredients.** Bromated flour conforms to the definition and standard of identity, and is subject to the requirements for label statement of optional ingredients, prescribed for flour by Sec. 15.00, except that:

(a) Potassium bromate is added in a quantity not exceeding 50 parts to each million parts of the finished bromated flour; and is added only to flours whose baking qualities are improved by such addition.

(b) Its protein content, calculated to a moisture-free basis, is not less than 15% (determination and calculations of protein are made as prescribed in Section 15.00 (c) (2)).

Sec. 15.30. **Enriched bromated flour; identity; label statement of optional ingredients.** Enriched bromated flour conforms to the definition and standard of identity, and is subject to the requirements for label statement of optional ingredients, prescribed for enriched flour by Section 15.10, except that potassium bromate is added in a quantity not exceeding 50 parts to each million parts of the finished enriched bromated flour; and is added only to enriched flours whose baking qualities are improved by such addition. Note: Sec. 15.20 and 15.30 shall become effective Oct. 21, 1948 (13 F. R. 4232).

Sec. 15.40. **Durum flour; identity.** (a) Durum flour is the food prepared by grinding and bolting cleaned durum wheat. One of the cloths through which such flour is bolted has openings not larger than those of woven-wire cloth designated "149 micron (No. 100)" in Table I of "Standard Specifications for Sieves," published March 1, 1940, in L. C. 584 of the U.S. Department of Commerce, National Bureau of Standards. It is freed from bran coat, or bran coat and germ, to such extent that the per cent of ash therein, calculated to a moisture-free basis, is not more than 1.5%.

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its moisture content is not more than 15%.

(b) For the purposes of this section, ash and moisture are determined by the methods therefor referred to in Section 15.00 (c).

Sec. 15.50. **Self-rising flour, self-rising white flour, self-rising wheat flour; identity; label statement of optional ingredients.** (a) Self-rising flour, self-rising white flour, self-rising wheat flour, is an intimate mixture of flour, sodium bicarbonate, and the acid-reacting substance monocalcium phosphate or sodium acid pyrophosphate or both. It is seasoned with salt. When it is tested by the method prescribed in paragraph (c), not less than 0.5% of carbon dioxide is evolved. The acid-reacting substance is added in sufficient quantity to neutralize the sodium bicarbonate. The combined weight of such acid-reacting substance and sodium bicarbonate is not more than 4.5 parts to each 100 parts of flour used. Subject to the conditions and restrictions prescribed by Section 15.00 (a), the bleaching ingredients specified in such section may be added as optional ingredients. If the flour used in making the self-rising flour is bleached, the optional bleaching ingredient used therein (see Section 15.00 (a)) is also an optional ingredient of the self-rising flour.

(b) When any optional bleaching ingredient is used, the label shall bear the word "Bleached." Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the word "Bleached" shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter; except that where such name is a part of a trade-mark or brand, other written, printed, or graphic matter, which is also a part of such trade-mark or brand, may so intervene if the word "Bleached" is in such juxtaposition with such trade-mark or brand as to be conspicuously related to such name.

(c) The method referred to in paragraph (a) of this section is the method prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," 5th edition, 1940, beginning on page 186 [Ed. note: 6th Edition, p. 208] under "Gasometric Method with Chittick's Apparatus—Official," except that the following procedure is substituted for the procedure specified therein under "6—Determination":

Weigh 17 grams of the official sample into flask A, add 15-20 glass beads (4-6 mm. diameter), and connect this flask with the apparatus (Figure 22). Open stopcock C and by means of the leveling bulb E bring the displacement solution to the 25 cc. graduation above the zero mark. (This 25 cc. is a partial allowance for the volume of acid to be used in the decomposition.) Allow the apparatus to stand 1-2 minutes to insure that the temperature and pressure within the apparatus are the same as those of the room. Close the stopcock, lower the leveling bulb somewhat to reduce the pressure within the apparatus, and slowly run into the decomposition flask from burette F 45 cc. of sulfuric acid (1+5). To prevent the liberated carbon dioxide from escaping through the acid burette into the air, keep the displacement solution in the leveling bulb at all times during the decomposition at a lower level than that in the gas-measuring tube. Rotate and then vigorously agitate the decomposition flask for three minutes to mix the contents intimately. Allow to stand for 10 minutes to bring to equilibrium. Equalize the pressure in the measuring tube by means of the leveling bulb and read the volume of gas from the zero point on the tube. Deduct 20 cc. from this reading (this 20 cc. together with previous allowance of 25 cc. compensates for the 45 cc. acid used in the decomposition). Observe the temperature of the air surrounding the apparatus and also the barometric pressure and multiply the number of cc. of gas evolved by the factor given in Table 24—Chapter XLIII [Ed. note: 6th Edition, 1945, 443O] for the temperature and pressure observed. Divide the corrected reading by 100 to obtain the apparent per cent by weight of carbon dioxide in the official sample.

Correct the apparent per cent of carbon dioxide to compensate for varying atmospheric conditions by immediately assaying a synthetic sample by the same method in the same apparatus.

Prepare the synthetic sample with 16.2 grams of flour, 0.30 gram of monocalcium phosphate, 0.30 gram of salt, and a sufficient quantity of sodium bicarbonate U. S. P. (dried over sulfuric acid) to yield the amount of carbon dioxide recovered in assay of official sample. Determine this quantity by multiplying weight of carbon dioxide recovered in assay of official sample by 1.91.

Divide the weight of carbon dioxide recovered from synthetic sample by weight of carbon dioxide contained in sodium bicarbonate used.

Divide the quotient into the apparent per cent of carbon dioxide in official sample to obtain per cent of carbon dioxide evolved from the official sample.

Sec. 15.60. **Enriched self-rising flour; identity; label statement of optional ingredients.** Enriched self-rising flour conforms to the definition and standard of identity, and is subject to the requirements for label statement of optional ingredients, prescribed for self-rising flour by Section 15.50, except that:

(a) It contains in each pound not less than 2.0 milligrams and not more than 2.5 milligrams of thiamine, not less than 1.2 milligrams and not more than 1.5 milligrams of riboflavin, not less than 16.0 milligrams and not more than 20.0 milligrams of niacin or niacin amide, not less than 13.0 milligrams and not more than 16.5 milligrams of iron (Fe), not less than 500 milligrams and not more than 1,500 milligrams of calcium (Ca);

(b) Vitamin D may be added in such quantity that each pound of the finished enriched self-rising flour contains not less than 250 U. S. P. units and not more than 1,000 U. S. P. units of vitamin D;

(c) It may contain not more than 5% by weight of wheat germ or partly defatted wheat germ;

(d) When calcium is added as dicalcium phosphate, such dicalcium phosphate is also considered to be an acid-reacting substance; and

(e) When calcium is added as carbonate, the method set forth in Section 15.50 (c) does not apply as a test for carbon dioxide evolved; but in such case the quantity of carbon dioxide evolved under ordinary conditions of use of the enriched self-rising flour is not less than 0.5% of the weight thereof.

Iron and calcium may be added only in forms which are harmless and assimilable. The substances referred to in paragraphs (a) and (b) of this section may be added in a harmless carrier which does not impair the enriched self-rising flour; such

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Grain-Mill Products, General Statistics for the United States

Note: The 1947 Census is the first to be taken since 1939. Flour and meal industry comprises establishments primarily engaged in milling flour or meal from grain; prepared animal feed industry comprises establishments primarily engaged in manufacturing prepared feeds for animals and fowls. Cereal preparations industry comprises establishments primarily engaged in manufacturing breakfast foods and other cereal preparations from grain. Blended and prepared flour industry comprises establishments primarily engaged in the preparation of self-rising or blended flour from purchased flour.

Source: U.S. Bureau of the Census

(Money figures in thousands of dollars)

Industry and census year	Number of establishments	All employees: Number (average for the year)	All employees: Salaries & wages, total	Production and related workers: Number (average for the year)	Production and related workers: Wages, total	Value added by manufacture*	Cost of materials, fuel, electricity and contract work†	Value of products shipped‡
Total for grain-mill products—								
1947	4,206	113,217	$311,736	86,063	$216,329	$1,001,692	$4,226,044	$5,226,736
1939	3,746	73,511	99,339	60,682	56,606	325,962	914,502	1,240,464
1937	3,537	163,081	181,878	51,138	58,173	287,933	1,194,937	1,482,870
1935	3,313	61,045	74,404	48,016	48,011	269,183	1,063,492	1,332,675
1933	2,795	50,176	53,580	40,749	38,749	237,602	632,453	870,055
1931	3,374	***	***	39,810	46,981	264,841	725,064	989,906
1929	4,963	69,450	92,955	46,328	58,218	350,122	1,336,707	1,687,829
1927	4,619	69,862	91,050	45,186	57,226	302,630	1,356,616	1,662,246
Flour and meal—								
1947	1,243	39,458	118,940	30,722	85,880	410,468	2,101,075	2,511,543
1939§	2,143	35,978	49,375	24,771	28,370	143,852	506,061	649,963
1937	2,238	32,977	44,008	26,390	30,186	133,599	722,711	856,310
1935	2,193	33,805	41,860	26,495	27,105	136,997	716,222	853,219
1933	1,932	28,713	31,374	23,207	22,591	134,332	432,671	567,003
1931	2,412	***	***	22,840	27,298	136,950	461,091	598,041
1929	4,022	35,792	55,667	27,028	35,072	191,396	868,873	1,060,269
1927	4,035	40,128	59,791	29,982	37,559	176,049	972,711	1,148,760
1925**	4,314	42,775	62,693	31,988	39,700	172,636	1,125,379	1,298,015
1923	5,232	48,029	68,035	35,194	41,704	162,605	885,972	1,048,577
1921	6,485	48,137	68,818	36,378	43,143	185,930	993,810	1,179,740
1919	10,708	63,832	82,901	45,481	50,858	253,253	1,799,181	2,052,434
1914	10,788	52,066	60,963	39,718	24,593	125,410	752,270	877,680
1909	11,691	51,484	53,981	39,453	21,464	116,008	767,576	883,584
1904	10,051	46,526	37,176	39,110	19,822	93,062	619,971	713,033
1899	9,476	37,743	31,543	32,226	16,285	73,279	428,117	501,396
Prepared animal feeds—								
1947	2,639	55,347	143,301	40,266	93,579	394,236	1,736,027	2,130,263
1939	1,383	24,177	31,803	15,401	16,253	99,240	302,640	401,880
1937	1,126	19,190	24,486	14,397	15,839	76,706	338,505	415,211
1935	942	15,427	18,349	11,606	11,068	58,040	230,622	288,662
1933	710	11,340	11,496	8,791	7,866	39,273	122,078	161,343
1931	796	***	***	8,449	9,402	47,187	162,734	209,921
1929	750	14,384	22,400	10,223	12,821	74,833	327,920	402,753
1927††	447	11,378	17,475	7,632	9,703	55,117	244,676	299,793
Cereal preparations—								
1947	64	11,276	35,635	9,496	25,160	130,158	154,478	284,666
1939	70	9,033	13,647	7,455	9,557	70,349	58,034	128,383
1937‡‡	71	***	***	7,725	10,419	65,480	85,121	150,861
1935	110	9,204	11,631	7,890	8,526	64,248	82,433	146,681
1933	103	8,135	9,064	7,115	7,370	56,011	55,015	111,026
1931	111	***	***	7,018	9,005	72,166	69,427	141,593
1929	121	8,158	12,231	6,488	8,876	73,751	101,472	175,223
1927	77	7,210	11,032	6,028	8,417	63,815	91,748	155,563
1925	90	***	***	6,168	7,942	57,502	92,577	150,079
1923	92	7,627	10,438	6,410	7,878	43,287	84,458	132,745
1921	82	7,853	12,189	6,749	7,178	43,482	74,559	118,041
1919	105	10,874	14,258	7,634	8,509	41,385	117,838	159,223
1914¶¶	137	7,513	6,094	5,177	3,134	23,218	36,767	59,985
Blended and prepared flour—								
1947	122	2,064	8,807	2,312	5,110	23,368	52,155	75,523
1939	78	1,105	1,419	706	593	3,928	13,966	17,894
1937‖‖	41	***	***	405	373	3,909	9,735	13,634

***Not available.

*Value of products less cost of materials, supplies, fuel, electricity and contract work.

†Figures for years prior to 1935 do not include cost of contract work.

‡For 1947 and 1929, value of products shipped; for all other years, value of products made.

§Data for employees other than production workers reported for the "cereal preparations" and "blended and prepared flour" industries are not included in the figures for "all employees" for 1937. The figures do include, however, data for production and related workers reported by these industries.

§The figures for 1939 include data for two establishments making soy flour. Although soy flour is now classified in the "soybean oil mills" industry, the data for these two establishments have been included in the 1939 figures for "flour and meal" to avoid disclosure of their figures.

**The figures for 1899-1925 are not strictly comparable with those for later years because they include data for establishments which make prepared animal feeds from grain ground in the same establishment. Such establishments have been classified in "prepared animal feeds" since 1927.

††The figures for years prior to 1927 are not sufficiently comparable with those for later years to be shown in this table because they do not include data for manufacturers of prepared feeds who grind the grain consumed.

‡‡The figures for 1937-47 exclude data for self-rising flour, whereas the figures for earlier years include data for this product. Value added in 1937, including data for self-rising flour, was $69.6 million.

¶¶Prior to 1914, "cereal preparations" was combined with "food preparations, not elsewhere classified."

‖‖The figures for 1937 are for self-rising flour only. Blended flour made from purchased flour was not classified as a manufactured product prior to 1937. No comparable figures are available prior to 1937.

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carrier is used only in the quantity necessary to effect an intimate and uniform admixture of such substances with the flour.

Sec. 15.70. **Phosphated flour, phosphated white flour, phosphated wheat flour; identity; label statement of optional ingredients.** Phosphated flour, phosphated white flour, phosphated wheat flour, conforms to the definition and standard of identity, and is subject to the requirements for label declaration of optional ingredients, prescribed for flour by Section 15.00, except that:

(a) Monocalcium phosphate is added in a quantity not less than 0.25% and not more than 0.75% of the weight of the finished phosphated flour; and

(b) In determining whether the ash content complies with the requirements of this section allowance is made for the added monocalcium phosphate.

Sec. 15.80. **Whole wheat flour, graham flour, entire wheat flour; identity; label statement of optional ingredients.** (a) Whole wheat flour, graham flour, entire wheat flour, is the food prepared by so grinding cleaned wheat other than durum wheat and red durum wheat that, when tested by the method prescribed in paragraph (c) (2) of this section, not less than 90% passes through a No. 8 sieve and not less than 50% passes through a No. 20 sieve. The proportions of the natural constituents of such wheat, other than moisture, remain unaltered. To compensate for any natural deficiency of enzymes, malted wheat, malted wheat flour, malted barley flour, or any combination of two or more of these, may be used; but the quantity of malted wheat flour so used is not more than 0.5%, and the quantity of malted barley flour so used is not more than 0.25%. The moisture content of whole wheat flour is not more than 15%. Unless such addition conceals damage or inferiority of the whole wheat flour or makes it appear better or of greater value than it is, the optional bleaching ingredient chlorine dioxide, chlorine, or a mixture of nitrosyl chloride and chlorine, may be added in a quantity not more than sufficient for bleaching and artificial aging effects.

(b) When any optional bleaching ingredient is used, the label shall bear the word "Bleached." Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the word "Bleached" shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter; except that where such name is a part of a trade-mark or brand, other written, printed, or graphic matter, which is also a part of such trade-mark or brand, may

Quantity and Value of Grain-Mill Products Industries, 1947 and 1939

Note: Total production and value of products for flour milling industry, blended and prepared flour, cereal preparations and prepared animal feeds for 1947 and 1939. **Source: Bureau of the Census**

(All figures in thousands)

Product and unit of measure	1947 — Total shipments and interplant transfers: Quantity	1947 — Total shipments and interplant transfers: Value f.o.b. plant	1939 — Production for sale: Quantity	1939 — Production for sale: Value f.o.b. plant
Wheat flour, plain, total*, 100-lb. sack	**271,404**	**$1,598,178**	**198,906**	**$410,784**
White, 100-lb. sack	254,318	1,501,146	187,967	388,481
Whole wheat, 100-lb. sack	4,714	26,614	4,287	8,880
Semolina, 100-lb. sack	9,164	50,928	6,652	13,423
Other, including farina, 100-lb. sack	3,208	19,490	†	†
Blended and prepared flour, total, 100-lb. sack	**47,374**	**365,187**	**25,845**	**75,596**
Plain blended, 100-lb. sack	3,326	13,836	1,425	3,321
Phosphated, 100-lb. sack	19,679	120,922	7,270	15,943
Self-rising, 100-lb. sack	14,994	101,608	13,283	32,080
Other prepared flour (pancake, etc.), 100-lb. sack	10,375	128,819	3,867	24,352
Blended and prepared flour, made in flour mills, 100-lb. sack	**40,096**	**273,576**	**19,390**	**47,606**
Plain blended, 100-lb. sack	1,869	10,718	790	1,657
Phosphated, 100-lb. sack	19,031	115,734	6,628	14,351
Self-rising, 100-lb. sack	‡12,955	‡83,868	10,574	24,895
Other prepared flour (pancake, etc.), 100-lb. sack	6,241	63,256	1,407	6,705
Blended and prepared flour, not made in flour mills‖, 100-lb. sack	**7,278**	**91,611**	**6,446**	**27,988**
Plain blended, 100-lb. sack	457	3,120	635	1,564
Phosphated, 100-lb. sack	648	5,188	642	1,592
Self-rising, 100-lb. sack	2,039	17,740	2,709	7,185
Other prepared flour (pancake, etc.), 100-lb. sack	4,134	65,563	2,460	17,647
Wheat bran, shorts and middlings, ton	5,824	319,412	4,391	89,813
Corn meal, total, 100-lb. sack	**11,838**	**65,694**	**14,147**	**22,596**
Whole, 100-lb. sack	5,997	33,628	•••	•••
Degermed, 100-lb. sack	5,841	32,066	•••	•••
Other grain-mill products, not elsewhere classified, total	....	**131,417**	....	•••
Rye flour, 100-lb. sack	2,109	13,538	2,844	4,092
Rye millfeed, ton	23	1,121	•••	•••
Corn grits and hominy for human consumption, 100-lb. sack	4,841	24,929	2,275	3,620
Corn grits and flakes for brewers' use, 100-lb. sack	6,911	37,509	4,035	5,410
Hominy feed and other corn milling by-products, ton	549	37,257	•••	•••
Oat millfeed and other oat milling by-products, ton	237	11,346	•••	•••
Other grain-mill products§	....	5,717	....	1,623
Grain-mill products, not specified by kind	....	31,605	....	4,454
Poultry and livestock feeds, total, ton	**22,298**	**1,981,594**	•••	•••
Grain (ground, rolled, chopped or crimped), ton	1,584			
Poultry feeds—	†			
All scratch feeds, ton	1,755			
Chicken mash and pellets, under 25% protein—				
Layer and breeder, ton	4,318			
Starter, ton	960			
Grower, ton	1,173			
Broiler, ton	1,522			
Turkey mash and pellets, under 25% protein, ton	547			
Other poultry feeds, under 25% protein, ton	612			
Supplements and concentrates, 25% protein and over, ton	832	....	•••	....
Livestock feeds—				
Dairy, under 25% protein, ton	4,664			
Dairy, 25% protein and over, ton	608			
Beef and range cattle, ton	436			
Sheep and goat, ton	71			
Pig and hog, under 25% protein, ton	771			
Pig and hog, 25% protein and over, ton	707			
Horse and mule, ton	534			
Other livestock feeds**, ton	757			
Poultry and livestock feeds, kind not specified, ton	447			
Dog and cat food, total, lb.	**1,107,849**	**96,359**	**732,005**	**33,467**
Canned, lb.	427,137	38,389	501,378	22,948
Biscuits, pellets and meal, lb.	680,712	57,970	230,717	10,519
Miscellaneous feeds, total	....	**86,542**	....	•••
Mineral mixtures, lb.	399,799	18,257	615,484	7,750
Alfalfa meal, total, ton	....	....	419,126	8,083
Suncured, ton	397	15,944	•••	•••
Dehydrated, ton	723	34,311	•••	•••
Other prepared feeds, not elsewhere classified††	....	18,030	•••	•••
Prepared feeds, kind not specified	....	‡‡50,549	....	....
Cereal preparations, total	....	**221,758**	....	**108,458**
Ready to serve, total, lb.	713,147	148,134	576,493	67,065
Corn, lb.	207,360	35,130	•••	•••
Wheat, lb.	306,632	60,059	299,539	37,665
Other grains and mixed grains, lb.	199,155	52,945	•••	•••
To be cooked before serving, total, lb.	773,054	69,693	712,123	36,407
Corn, lb.	2,809	320	•••	•••
Oats, lb.	504,657	42,919	•••	•••
Wheat, lb.	165,093	19,818	153,453	10,463
Other grains and mixed grains, lb.	100,495	6,636	•••	•••
Cereal coffee substitute	•••	3,772	•••	•••
Cereal preparations, kind not specified	....	159	•••	•••

•••Not available.

*Total production, including the quantity produced and used in the same mills in the manufacture of blended and prepared flours amounted to 305.5 million sacks in 1947.

†Included with white flour.

‡Includes a small quantity of prepared flour, kind not specified.

§Includes production in cereal plants, largely from purchased flour.

‖Includes buckwheat and corn flour.

**Includes feed for rabbits, mink, foxes, laboratory animals, etc.

††Includes crushed oyster shells, egg shells, dried citrus pulp and miscellaneous prepared materials used as feeds or feed adjuncts.

‡‡Includes total sales ($29,673,000) of 468 establishments classified in the "prepared animal feeds" industry, for which no detailed breakdown of sales was tabulated.

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so intervene if the word "Bleached" is in such juxtaposition with such trade-mark or brand as to be conspicuously related to such name.

(e) For the purpose of this section:

(1) Moisture is determined by the method prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," 5th edition, 1940, page 211, under "Vacuum Oven Method—Official." (Ed. note: 6th Edition, 1945, p. 237.)

(2) The method referred to in paragraph (a) of this section is as follows: Use No. 8 and No. 20 sieves, having standard 8-inch full height frames, complying with the specifications for wire cloth and sieve frames in "Standard Specifications for Sieves," published March 1, 1940, in L. C. 584 of the U. S. Department of Commerce, National Bureau of Standards. Fit a No. 8 sieve into a No. 20 sieve. Attach bottom pan to the No. 20 sieve. Pour 100 grams of the sample into the No. 8 sieve. Attach cover and hold the assembly in a slightly inclined position with one hand. Shake the sieves by striking the sides against the other hand with an upward stroke, at the rate of about 150 times per minute. Turn the sieves about one sixth of a revolution, each time in the same direction, after each 25 strokes. Continue shaking for two minutes. Weigh the material which fails to pass through the No. 8 sieve and the material which passes through the No. 20 sieve.

Sec. 15.90. **Bromated whole wheat flour; identity; label statement of optional ingredients.** Bromated whole wheat flour conforms to the definition and standard of identity, and is subject to the requirements for label statement of optional in-

U.S. Grain-Mill Products Industries, Detailed Statistics, 1947

Note: Detailed statistics for flour milling, blended and prepared flour, cereal preparations and prepared animal feeds for 1947. **Source: U.S. Bureau of the Census**

(Money figures in thousands of dollars)

Item	Industry: Flour and meal	Prepared animal feeds	Cereal preparations	Blended and prepared flour
All establishments—				
Number of establishments	1,243	2,689	64	122
All employees:				
Number (aver. for the year)	39,458	55,347	11,276	3,064
Salaries and wages, total	$118,940	$143,301	$30,689	$8,807
Production & related workers:				
Number (aver. for the year)	30,722	40,266	9,496	2,312
Man-hours, total, thousands	74,412	92,751	19,540	4,857
Wages, total	$85,680	$93,579	$25,160	$5,110
Value added by manufacture	$410,468	$394,236	$130,188	$23,368
Establishments reporting detailed statistics—				
Number of establishments	888	2,221	64	122
All employees:				
Number (aver. for the year)	38,508	53,453	11,276	3,064
Salaries and wages, total	$117,442	$139,464	$30,689	$8,807
Production & related workers:				
Number (aver. for the year)	29,781	38,428	9,496	2,312
Man-hours, total, thousands	72,539	89,085	19,540	4,857
Wages, total	$84,204	$89,824	$25,160	$5,110
Value added by manufacture	$406,823	$387,075	$130,188	$23,368
Number of employees for pay period ended nearest Oct. 15:				
All employees	39,651	54,124	11,466	3,320
Male	36,316	49,405	7,429	2,135
Female	3,335	4,719	4,037	1,185
Production & related workers	30,700	39,658	9,831	2,483
Male	29,350	37,463	6,504	1,559
Female	1,350	1,195	3,327	924
Force-account construction workers	229	493	3	....
Administrative, supervisory, sales, and all other	8,722	14,973	1,832	837
Male	6,737	11,451	1,122	576
Female	1,985	3,522	710	261
All employees, number by month:				
January	37,882	50,966	11,421	3,378
February	37,720	50,806	11,198	3,130
March	37,833	51,860	11,099	3,082
April	37,706	51,356	11,555	3,248
May	37,186	53,211	10,791	2,754
June	37,697	55,754	10,433	2,794
July	38,900	56,527	11,164	2,813
August	39,556	55,894	11,954	2,812
September	38,521	55,168	12,158	3,035
October	39,651	54,124	11,466	3,320
November	39,573	52,862	11,230	3,291
December	39,259	53,118	10,451	3,292
Cost of materials, fuel, electricity and contract work	$2,085,015	$1,713,515	$164,478	$52,165
Materials, parts, containers and supplies	2,073,074	1,700,210	151,796	51,823

Item	Industry: Flour and meal	Prepared animal feeds	Cereal preparations	Blended and prepared flour
Establishments reporting detailed statistics—Continued—				
Fuels, total	$2,911	$4,658	$1,479	$126
Bituminous coal	1,143	784	854	22
Anthracite	70	145	106	1
Coke	8	24	5	....
Fuel oils	1,005	1,977	152	86
Gas	492	1,178	367	16
Other fuels	193	550	95	1
Purchased electric energy	6,911	7,052	1,199	151
Contract and commission work	119	1,595	2	65
Value of inventories:				
Beginning of year, total	$278,916	$181,924	$28,457	$11,144
Finished products	37,251	44,694	6,929	2,141
Materials, supplies and work in process	241,665	137,230	21,528	9,003
End of year, total	371,493	209,044	32,413	11,732
Finished products	47,891	55,409	6,890	2,566
Materials, supplies and work in process	323,602	153,675	25,522	9,166
Expenditures for plant and equipment:				
New plant and equipment	$27,784	$34,791	$3,842	$1,856
Construction and major alterations of fixed plants	12,601	14,704	909	727
Buildings	12,104	13,527	609	637
Other construction	497	1,177	300	90
Machinery and equipment	15,183	20,087	2,933	1,129
Production machinery and equipment	13,013	14,788	2,732	888
Other machinery and equipment	2,170	5,299	201	241
Used plant and equipment and land	940	1,838	31	32
Number of highway-type motor vehicles owned or leased:				
Trucks	1,887	6,003	105	141
By manufacturer's rated capacity:				
Under 1½ tons	432	1,363	37	37
1½ tons	807	2,855	43	41
Over 1½ tons and less than 3½ tons	436	1,283	20	39
3½ tons and less than 5 tons	89	171	4	10
5 tons and over	123	331	1	14
By body type:				
Van	421	668	6	62
Stake or platform	770	3,214	47	27
Panel or light delivery	365	884	37	42
All other trucks	330	1,237	15	9
Truck tractors	460	832	7	6
Trailers and semitrailers	502	1,026	7	6

gredients, prescribed for whole wheat flour by Section 15.80, except that potassium bromate is added in a quantity not exceeding 75 parts to each million parts of finished bromated whole wheat flour.

Sec. 15.100. **Whole durum wheat flour; identity; label statement of optional ingredients.** Whole durum wheat flour conforms to the definition and standard of identity, and is subject to the requirements for label statement of optional ingredients, prescribed for whole wheat flour by Section 15.80, except that cleaned durum wheat, instead of cleaned wheat other than durum wheat and red durum wheat, is used in its preparation.

Sec. 15.110. **Crushed wheat, coarse ground wheat; identity.** Crushed wheat, coarse ground wheat, is the food prepared by so crushing cleaned wheat other than durum wheat and red durum wheat that, when tested by the method prescribed in Section 15.80 (c) (2), 40% or more passes through a No. 8 sieve and less than 50% passes through a No. 20 sieve. The proportions of the natural constituents of such wheat, other than moisture, remain unaltered. Crushed wheat contains not more than 15% of moisture as determined by the method prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," 5th edition, 1940, page 353 [Ed. note: 6th Edition, 1945, p. 404], under "Preparation of Sample—Official" and "Moisture I. Drying with Heat—Official."

Sec. 15.120. **Cracked wheat; identity.** Cracked wheat is the food prepared by so cracking or cutting into angular fragments cleaned wheat other than durum wheat and red durum wheat that, when tested by the method prescribed in Section 15.80 (c) (2), not less than 90% passes through a No. 8 sieve and not more than 20% passes through a No. 20 sieve. The proportions of the natural constituents of such wheat, other than moisture, remain unaltered. Cracked wheat contains not more than 15% of moisture as determined by the method prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," 5th edition, 1940, page 353 [Ed. note: 6th Edition, 1945, p. 404], under "Preparation of Sample — Official" and "Moisture I. Drying with Heat—Official."

Sec. 15.130. **Farina; identity.** (a) Farina is the food prepared by grinding and bolting cleaned wheat, other than durum wheat and red durum wheat, to such fineness that, when tested by the method prescribed in paragraph (b) (2) of this section, it passes through a No. 20 sieve, but not more than 3% passes through a No. 100 sieve. It is freed from bran coat, or bran coat and germ, to such extent that the per cent of ash therein, calculated to a moisture-free basis, is not more than 0.44%. Its moisture content is not more than 15%.

(b) For the purposes of this section:

(1) Ash and moisture are determined by the methods therefor referred to in Section 15.00 (c).

(2) The method referred to in paragraph (a) of this section is as follows: Use No. 20 and No. 100 sieves, having standard 8-inch full-height frames, complying with the specifications for wire cloth and sieve frames in "Standard Specifications for Sieves" published March 1, 1940, in L. C. 584 of the U.S. Department of Commerce, National Bureau of Standards. Fit a No. 20 sieve into a No. 100 sieve. Attach bottom pan to the No. 100 sieve. Pour 100 grams of the sample into the No. 20 sieve. Attach cover and hold the assembly in a slightly inclined position with one hand. Shake the sieves by striking the sides against the other hand with an upward stroke, at the rate of about 150 times per minute. Turn the sieves about one sixth of a revolution, each time in the same direction, after each 25 strokes. Continue shaking for two minutes. Weigh the material which fails to pass through the No. 20 sieve and the material which passes through the No. 100 sieve.

Sec. 15.140. **Enriched farina; identity; label statement of optional ingredients.** (a) Enriched farina conforms to the definition and standard of identity prescribed for farina by Section 15.130, except that:

(1) It contains in each pound not less than 1.66 milligrams of vitamin B_1, not less than 1.2 milligrams of riboflavin, not less than 6 milligrams of niacin or niacin amide, and not less than 6 milligrams of iron (Fe);

Note: The effective date of the requirement that each pound of enriched farina contain not less than 1.2 milligrams of riboflavin was postponed until further announcement, 8 F.R. 3358, 9115.

(2) Vitamin D may be added in such quantity that each pound of the finished enriched farina contains not less than 250 U. S. P. units of the optional ingredient vitamin D;

(3) Calcium may be added in such quantity that each pound of the finished enriched farina contains not less than 500 milligrams of the optional ingredient calcium (Ca.).

(4) It may contain not more than 8%

Range of Flour Prices at Principal Centers in U.S.

Note: High and low flour prices by months, basis carload lots, prompt delivery, per sack of 100 lb. **Source: The Northwestern Miller**

	Chicago Spring		Minneapolis Spring		Kansas City Hard winter	
1950—	Top Pat.	1st Clear	Std. Pat.	1st Clear	Std. Pat.	1st Clear
January	$5.65@5.95	$4.65@5.42	$5.45@5.80	$4.90@5.55	$5.15@5.35	$3.45@3.85
February	5.60@5.91	4.60@5.30	5.40@5.75	4.85@5.55	5.20@5.40	3.65@4.25
March	5.60@5.91	4.60@5.24	5.40@5.80	4.90@5.70	5.25@5.50	4.00@4.30
April	5.60@5.95	4.60@5.34	5.50@5.80	4.90@6.00	5.20@5.53	4.15@4.55
May	5.45@6.10	4.70@5.40	5.35@5.95	4.90@5.85	5.08@5.40	4.20@4.55
June	5.60@6.15	4.85@5.40	5.20@5.95	5.15@5.90	4.90@5.28	4.00@4.50
July	5.70@6.10	5.20@5.60	5.70@6.20	5.35@6.20	5.10@5.50	4.15@4.60
August	5.70@6.17	5.35@5.90	5.75@6.10	5.55@6.25	5.10@5.35	4.10@4.80
September	5.60@6.20	5.50@5.90	5.80@6.10	5.65@6.25	5.10@5.30	4.15@4.70
October	5.70@6.20	5.55@5.88	5.50@5.90	5.45@6.30	5.15@5.45	4.20@4.65
November	5.65@6.15	5.50@5.92	5.55@5.90	5.50@6.30	5.25@5.45	4.45@4.70
December	5.65@6.30	5.50@6.10	5.70@6.10	5.70@6.60	5.35@5.65	4.65@5.00
	Chicago Spring		Minneapolis Spring		Kansas City Hard winter	
1949—	Top Pat.	1st Clear	Std. Pat.	1st Clear	Std. Pat.	1st Clear
January	$5.40@5.90	$4.95@5.45	$5.35@5.60	$4.95@5.50	$5.15@5.35	$4.20@4.40
February	5.35@5.90	4.75@5.35	5.25@5.55	4.95@5.50	5.00@5.25	3.60@4.10
March	5.30@6.00	4.65@5.50	5.20@5.60	4.90@5.35	5.00@5.40	3.45@3.75
April	5.30@5.88	4.65@5.38	5.05@5.60	4.70@5.25	4.90@5.20	3.40@3.75
May	5.10@5.81	4.50@5.41	5.10@5.45	4.80@5.35	4.80@5.20	3.50@3.95
June	4.95@5.80	4.60@5.54	5.35@5.70	5.00@5.60	4.65@5.30	3.80@4.00
July	5.50@6.02	4.90@5.90	5.15@5.90	4.75@5.70	4.75@5.10	3.50@2.90
August	5.25@5.75	4.70@5.35	5.20@5.50	4.90@5.55	4.85@5.10	2.90@3.60
September	5.50@5.86	4.80@5.40	5.40@5.75	5.20@5.75	5.10@5.25	3.80@4.25
October	5.45@6.13	4.65@5.54	5.55@5.85	5.10@5.65	5.15@5.40	3.60@3.95
November	5.60@6.13	4.80@5.57	5.55@5.95	4.95@5.65	5.10@5.25	3.25@3.80
December	5.65@6.05	4.70@5.40	5.45@6.00	4.85@5.55	5.10@5.30	3.40@3.95
	Chicago Spring		Minneapolis Spring		Kansas City Hard winter	
1948—	Top Pat.	1st Clear	Std. Pat.	1st Clear	Std. Pat.	1st Clear
January	$7.10@7.85	$6.00@6.95	$6.95@7.40	$6.15@6.80	$6.50@7.05	$5.50@5.80
February	6.25@7.61	5.35@6.70	6.10@7.10	5.35@6.60	5.55@6.85	4.15@5.40
March	6.05@7.05	5.25@6.08	6.00@6.50	5.45@6.10	5.40@6.05	4.00@4.70
April	6.10@6.70	5.10@6.30	5.80@6.25	5.20@6.25	5.35@5.80	4.45@4.75
May	5.80@6.40	5.15@6.20	5.70@6.05	5.45@6.10	5.35@5.65	4.25@4.45
June	5.70@6.45	5.20@6.05	5.55@5.85	5.25@5.90	4.95@5.35	4.25@4.55
July	5.55@6.20	5.20@5.70	5.45@5.90	5.10@5.80	5.05@5.25	4.45@4.80
August	5.40@6.00	4.80@5.70	5.45@5.85	5.10@5.80	5.15@5.35	4.70@4.80
September	5.45@5.90	5.10@5.45	5.50@5.65	5.10@5.60	5.10@5.25	4.20@4.70
October	5.45@6.10	5.10@5.65	5.60@5.95	5.20@5.80	5.10@5.30	4.30@4.48
November	5.65@6.30	5.10@5.85	5.80@6.10	5.35@5.75	5.15@5.45	4.35@4.55
December	5.60@6.00	5.05@5.70	5.60@5.90	5.15@5.75	5.15@5.40	4.20@4.55
	St. Louis Soft winter		Buffalo Spring		Seattle	
1950—	Short Pat.	1st Clear	Std. Pat.	1st Clear	Fam. Pat.	Bakery
January	$5.40@6.20	$4.30@4.40	$5.70@5.80	$5.20@5.40	$...@7.00	$6.12@6.80
February	6.30@6.40	4.25@4.55	5.75@5.90	5.20@5.30	7.00@7.05	6.11@6.14
March	...@6.35	3.90@4.60	5.85@5.90	5.20@5.30	7.00@7.10	6.19@6.22
April	6.20@6.40	4.05@4.40	5.85@6.00	5.15@5.30	...@7.10	6.17@6.19
May	6.20@6.40	4.60@4.85	5.70@6.00	5.15@5.30	7.10@7.20	6.09@6.25
June	5.95@6.30	4.30@4.50	5.75@6.00	5.20@5.35	...@7.00	6.11@6.13
July	5.85@6.05	4.40@4.65	6.05@6.10	5.40@5.45	...@7.10	...@6.30
August	6.00@6.05	4.35@4.65	6.15@6.40	5.75@6.05	7.10@7.20	6.44@6.52
September	6.00@6.05	4.40@4.55	6.30@6.50	6.00@6.30	...@7.10	6.31@6.40
October	6.00@6.10	4.50@4.65	6.15@6.35	6.10@6.30	6.70@7.10	6.30@6.47
November	6.10@6.20	4.65@4.75	6.10@6.25	6.20@6.30	6.70@6.90	6.40@6.47
December	6.20@6.70	4.65@5.25	6.15@6.45	6.20@6.50	6.90@7.30	6.47@6.71
	St. Louis Soft winter		Buffalo Spring		Seattle	
1949—	Short Pat.	1st Clear	Std. Pat.	1st Clear	Fam. Pat.	Bakery
January	$6.35@6.35	$4.80@4.85	$5.90@6.05	$5.60@5.65	$...@7.00	$6.12@6.21
February	5.42@6.16	4.50@4.65	5.70@6.00	5.55@5.65	6.80@7.00	6.06@6.13
March	5.33@6.13	4.15@4.50	5.75@6.00	5.50@5.55	6.80@7.00	6.08@6.14
April	5.80@5.95	4.05@4.25	5.85@5.85	5.50@5.55	6.90@7.00	5.93@6.12
May	5.85@6.10	4.25@4.60	5.55@5.90	5.30@5.60	...@6.80	5.97@6.05
June	5.70@5.95	4.10@4.40	5.45@5.95	5.35@5.65	6.80@7.20	5.96@6.37
July	5.45@5.50	4.05@4.10	5.80@6.10	5.55@5.85	6.80@7.20	6.19@6.50
August	5.60@5.75	3.85@4.10	5.80@5.80	5.40@5.80	6.80@7.10	5.68@6.50
September	5.65@5.95	4.10@4.35	5.70@5.90	5.45@5.60	6.80@6.95	6.12@6.13
October	5.90@6.00	4.15@4.25	5.90@6.35	5.55@5.65	...@6.95	...@6.26
November	6.00@6.10	4.00@4.25	5.80@6.00	5.35@5.65	...@6.95	6.06@6.21
December	6.15@6.20	4.00@4.25	5.70@5.95	5.30@5.55	6.95@7.00	5.85@6.08
	St. Louis Soft winter		Buffalo Spring		Seattle	
1948—	Short Pat.	1st Clear	Std. Pat.	1st Clear	Fam. Pat.	Bakery
January	$7.40@8.10	$6.45@6.75	$7.60@8.00	$6.65@6.80	$8.90@9.60	$7.98@8.35
February	6.60@7.75	5.30@6.15	6.55@7.70	5.85@6.60	7.56@8.70	6.85@8.05
March	6.60@6.95	5.05@5.40	6.45@6.80	5.70@5.95	7.25@7.60	6.80@7.22
April	6.70@6.75	5.05@5.15	5.95@6.70	5.75@6.10	7.60@7.60	6.89@6.90
May	6.50@6.70	4.80@4.90	6.30@6.65	5.90@6.10	7.30@7.30	6.77@6.81
June	6.05@6.50	4.80@4.90	5.90@6.20	5.60@5.80	7.25@7.25	6.58@6.62
July	6.20@6.45	4.75@4.90	5.80@6.00	5.45@5.65	6.95@7.10	6.33@6.69
August	6.45@6.50	4.75@5.15	5.65@5.90	5.30@5.60	7.00@7.10	6.14@6.50
September	6.40@6.45	5.15@5.25	5.75@5.85	5.35@5.50	6.80@6.80	6.06@6.13
October	6.40@6.60	5.15@5.30	5.80@6.15	5.20@5.45	6.80@6.80	6.14@6.24
November	6.55@6.70	5.30@5.45	6.05@6.25	5.50@5.75	7.20@7.20	6.25@6.52
December	6.60@6.70	4.80@5.25	6.00@6.20	5.60@5.80	7.00@7.20	6.21@6.31

by weight of the optional ingredient wheat germ or partly defatted wheat germ.

(5) It may contain not less than 0.5% and not more than 1% by weight of the optional ingredient disodium phosphate.

(6) In determining whether the ash content complies with the requirements of this section allowance is made for ash resulting from any added iron or salts of iron or calcium, or from any added disodium phosphate, or from any added wheat germ or partly defatted wheat germ.

Iron and calcium may be added only in forms which are harmless and assimilable. Dried irradiated yeast may be used as a source of vitamin D. The substances referred to in subparagraphs (1) and (2) of this paragraph may be added in a harmless carrier which does not impair the enriched farina; such carrier is used only in the quantity necessary to effect an intimate and uniform admixture of such substances with the farina.

(b) When the optional ingredient disodium phosphate is used, the label shall bear the statement "Disodium phosphate added for quick cooking." Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, such statement shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter; except that where such name is a part of a trade-mark or brand, other written, printed, or graphic matter, which is also a part of such trade-mark or brand, may so intervene if such statement is in such juxtaposition with such trade-mark or brand as to be conspicuously related to such name.

Sec. 15.150. **Semolina; identity.** (a) Semolina is the food prepared by grinding and bolting cleaned durum wheat to such fineness that, when tested by the method prescribed in Section 15.130 (b) (2), it passes through a No. 20 sieve, but not more than 3% passes through a No. 100 sieve. It is freed from bran coat, or bran coat and germ, to such extent that the per cent of ash therein, calculated to a moisture-free basis, is not more than 0.92%. Its moisture content is not more than 15%.

(b) For the purpose of this section:

Ash and moisture are determined by the methods therefor referred to in Section 15.00 (c).

Effective Dates—Chlorine dioxide is a gaseous substance whose practical use as a bleaching ingredient is made possible by the employment of certain machines for generating the chlorine dioxide gas, mixing it with air, and bringing measured amounts of the gaseous mixture in contact with the flour to be treated. The manufacture and installation of suitable machines to replace those used for bleaching with nitrogen trichloride will be time-consuming. Such change-over must be started immediately, in order to make possible the elimination of nitrogen trichloride as a bleaching agent for the various flours at the earliest practicable time. The necessity for beginning the change-over immediately creates an emergency condition which requires that the recognition of chlorine dioxide as an optional ingredient be made effective on the date of publication of this order in the Federal Register.

The time required fully to effect the change-over necessitates that a somewhat longer period be allowed before deleting nitrogen trichloride from the standard as an optional ingredient. No unusual conditions exist with respect to the use of additional diluting agents in conjunction with benzoyl peroxide.

Wherefore, it is ordered, That with respect to the definitions and standards of identity for flour (Sec. 15.00), enriched flour (Sec. 15.10), bromated flour (Sec. 15.20), enriched bromated flour (Sec. 15.30), self-rising flour (Sec. 15.50), enriched self-rising flour (Sec. 15.60), and phosphated flour (Sec. 15.70), insofar as the amendments hereby promulgated provide for designating chlorine dioxide as an optional bleaching ingredient, they shall become effective immediately upon publication of this order in the Federal Register; insofar as such amendments provide for carriers in addition to those previously permitted as carriers for benzoyl peroxide, they shall become effective ninety (90) days after the publication of this order in the Federal Register; and insofar as such amendments provide for deleting nitrogen trichloride from the permitted optional bleaching ingredients, they shall become effective Aug. 1, 1949.

It is further ordered, That with respect to the definitions and standards of identity for whole wheat flour (Sec. 15.80), bromated whole wheat flour (Sec. 15.90), and whole durum wheat flour (Sec. 15.100), insofar as the amendments hereby promulgated provide for designating chlorine dioxide as an optional bleaching ingredient, they shall become effective immediately upon publication of this order in the Federal Register; and insofar as such amendments provide for deleting nitrogen trichloride from the permitted optional bleaching ingredients, they shall become effective Aug. 1, 1949.

Canadian Mill Wages

Note: In 1951, in cents as specified under union contracts in force in large mills. (Figures for small country mills are lower.) Source: The Northwestern Miller.

Millwrights	$1.23@1.40
Electricians	1.21@1.38
Bolters and grinders	1.23@1.28
Packers	1.11@1.16
Elevator help	1.10@1.16
General help	1.03@1.14
Watchmen	1.03@ ...

Costs, Wages, Value of Grain-Mill Products Industry by Divisions & States

Note: General statistics for flour milling, blended and prepared flour, cereal preparations and prepared animal feeds by divisions and states. **Source: U.S. Bureau of the Census**

(Money figures and man-hours in thousands)

All employees | Production & related workers

Industry, division and state	Number of establishments	Number (average for the year)	Salaries and wages, total	Number (average for the year)	Man-hours, total	Wages, total	Value added by manufacture	Cost of materials, fuel, electricity and contract work	Value of products shipped	Expenditures for new plant and equipment
Flour and meal, total*	**1,243**	**39,458**	**$118,940**	**30,722**	**74,412**	**$85,680**	**$410,468**	**$2,101,075**	**$2,511,543**	**$37,784**
Northeast	152	3,373	10,957	2,731	6,424	8,339	52,250	241,105	293,385	981
New York	40	2,577	8,228	2,067	4,868	6,842	47,341	211,101	258,442	665
East North Central	222	6,681	20,129	5,130	12,050	14,061	60,495	363,812	424,310	12,843
Illinois	45	2,576	8,336	2,246	5,347	6,453	33,721	138,434	172,155	7,760
Michigan	47	889	2,717	650	1,490	1,796	5,866	33,690	39,556	3,082
Wisconsin	17	536	1,485	424	951	1,072	4,564	24,110	28,674	273
West North Central	236	13,667	43,010	10,844	27,101	31,713	157,328	876,798	1,034,126	6,660
Minnesota	52	3,696	12,478	3,010	7,815	9,494	40,021	270,873	310,894	1,735
Missouri	53	3,416	9,511	2,750	6,649	7,858	36,090	185,711	221,801	2,140
North Dakota	9	498	1,558	385	1,027	1,190	7,326	31,469	38,795	197
Nebraska	30	1,257	4,001	843	1,969	2,246	12,992	60,903	73,895	404
Kansas	69	4,335	13,836	3,475	8,689	9,896	55,623	302,283	357,906	2,090
South Atlantic	273	2,859	6,101	2,299	5,166	4,140	18,088	83,352	101,440	803
Maryland	29	483	1,226	360	879	841	6,996	21,235	28,231	114
East South Central	165	2,442	5,420	2,004	4,853	4,036	18,437	81,434	99,871	1,139
Tennessee	69	1,213	2,656	1,001	2,331	1,954	8,882	43,083	51,965	261
West South Central	75	4,970	14,743	3,666	8,958	9,713	50,209	245,696	295,905	1,919
Texas	37	3,033	9,113	2,194	5,361	5,830	29,955	154,377	184,332	1,124
Mountain	73	2,109	6,587	1,554	4,026	4,769	17,753	99,776	117,529	1,023
Montana	13	415	1,328	319	807	1,035	3,848	23,270	27,118	224
Idaho	13	331	958	260	686	714	2,903	13,890	16,793	129
Utah	21	491	1,615	318	810	1,053	4,296	24,168	28,464	278
Pacific	47	3,357	11,993	2,494	5,834	8,859	35,875	169,102	204,977	3,416
Washington	17	1,575	5,887	1,150	2,717	4,340	16,253	84,452	100,705	1,209
Oregon	17	895	3,192	673	1,567	2,347	11,674	43,886	55,560	450
California	13	887	2,914	671	1,550	2,172	7,948	40,764	48,712	757
Blended and prepared flour, total*	**122**	**3,064**	**8,807**	**2,312**	**4,557**	**5,110**	**23,368**	**52,155**	**75,523**	**1,956**
Northeast	26	1,382	3,813	1,100	1,770	2,554	10,621	20,178	30,799	880
East North Central	25	457	2,074	266	630	704	4,604	9,526	14,130	134
Ohio	5	54	160	44	95	114	607	1,414	2,021	10
West North Central	9	99	416	61	127	135	1,159	2,253	3,412	90
South	40	829	1,705	670	1,579	1,210	4,412	15,498	19,910	250
Texas	9	158	327	137	299	238	802	2,048	2,850	24
West	22	297	799	215	451	507	2,572	4,700	7,272	502
Cereal preparations, total*	**64**	**11,276**	**30,688**	**9,496**	**19,540**	**25,160**	**130,188**	**154,478**	**284,666**	**3,842**
New England	5	111	300	75	131	166	708	722	1,430	20
Middle Atlantic	12	1,903	5,390	1,646	3,645	4,437	21,825	21,276	43,101	760
East North Central	14	6,670	18,049	5,582	10,939	15,156	79,743	74,404	154,147	2,463
West North Central	11	2,276	6,129	1,943	4,265	4,832	24,477	53,018	77,495	496
South	8	102	228	77	201	158	1,149	2,065	3,214	56
West	14	215	593	173	359	411	2,286	2,993	5,279	47
Prepared animal feeds, total*	**2,680**	**55,347**	**$143,301**	**40,266**	**92,751**	**$93,579**	**$394,236**	**$1,736,027**	**$2,130,263**	**$34,791**
New England	65	1,870	4,978	1,435	3,186	3,461	15,200	88,900	104,100	1,435
Middle Atlantic	378	8,298	24,818	6,104	14,104	16,810	72,327	382,613	454,940	3,899
New York	147	5,056	16,528	3,654	8,334*	11,146	51,032	280,409	331,441	2,824
New Jersey	55	932	2,456	686	1,565	1,680	6,906	25,385	32,291	377
Pennsylvania	176	2,310	5,834	1,764	4,205	3,984	14,389	76,819	91,208	698
East North Central	551	11,828	32,547	7,219	16,163	17,910	81,239	357,748	438,987	7,041
Ohio	137	3,107	8,537	2,356	5,387	6,061	23,853	132,046	155,899	1,536
Indiana	126	1,863	4,651	1,311	2,953	3,253	11,406	65,416	76,824	1,142
Illinois	127	5,407	15,192	2,449	5,229	5,892	36,202	113,940	150,142	3,288
West North Central	694	10,061	24,668	7,486	17,990	17,214	76,118	256,389	332,507	8,091
Minnesota	153	1,747	4,510	1,317	2,966	3,117	16,112	56,923	73,035	1,422
Iowa	151	2,091	4,995	1,363	3,255	3,100	17,581	48,632	66,213	1,208
Missouri	114	2,725	6,633	2,018	4,799	4,542	22,188	89,321	111,509	2,065
South Atlantic	234	5,732	12,562	4,417	10,329	8,230	23,570	162,926	196,496	3,082
Virginia	49	1,095	2,346	772	1,806	1,411	5,813	31,650	37,463	721
North Carolina	57	1,395	2,870	1,153	2,645	2,002	8,227	37,739	45,966	498
South Carolina	16	314	608	259	615	429	1,692	8,500	10,192	76
Georgia	33	915	1,867	726	1,678	1,164	5,495	22,737	28,232	367
East South Central	110	4,173	9,085	3,322	7,803	6,050	27,345	135,502	162,847	2,681
Kentucky	28	584	1,396	475	1,098	1,013	3,341	19,439	22,780	216
Tennessee	53	2,124	4,289	1,609	3,692	2,582	15,534	66,714	82,248	1,022
Alabama	17	917	2,345	793	1,992	1,802	4,704	33,022	37,726	631
Mississippi	12	548	1,055	445	1,021	653	3,766	16,327	20,093	812
West South Central	207	5,175	11,386	4,038	9,419	7,596	28,664	127,905	156,569	2,297
Arkansas	35	594	1,163	461	1,010	725	3,244	19,382	22,626	356
Texas	114	3,225	7,145	2,425	5,759	4,727	18,591	81,386	99,977	1,427
Mountain	141	1,758	4,259	1,464	3,474	3,211	12,511	33,941	46,452	1,283
Idaho	19	195	482	159	369	360	1,324	5,217	6,541	162
New Mexico	11	117	234	102	226	151	908	731	1,639	16
Pacific	309	6,452	18,968	4,781	10,273	13,097	47,262	190,103	237,365	4,982
California	285	4,828	14,424	3,812	7,426	9,719	37,711	148,935	186,649	3,767

*For each producing state not shown separately in the table there are shown below the number of establishments and, in parentheses, the number of employees for states represented by three or more companies, when possible.

Flour and meal: Northeast, New Hampshire, 1; Rhode Island, 2; Connecticut, 2; New Jersey, 1; Pennsylvania, 105 (723); **East North Central,** Ohio, 66 (1,147); Indiana, 44 (1,234); **West North Central,** Iowa, 16 (400); South Dakota, 6 (65); **South Atlantic,** Delaware, 4 (16); District of Columbia, 1; Virginia, 103 (825); West Virginia, 7 (113); North Carolina, 76 (688); South Carolina, 23 (162); Georgia, 28 (455); Florida, 2; **East South Central,** Kentucky, 76 (989); Alabama, 18; Mississippi, 2; **West South Central,** Arkansas, 5; Louisiana, 1; Oklahoma, 32 (1,337); **Mountain,** Wyoming, 2; Colorado, 13 (689); New Mexico, 7; Arizona, 4 (54).

Blended and prepared flour: Northeast, Massachusetts, 2; New York, 17 (1,006); New Jersey, 1; Pennsylvania, 6 (149); East North Central, Indiana, 1; Illinois, 15 (382); Michigan, 3; Wisconsin, 1; **West North Central,** Minnesota, 1; Iowa, 1; Missouri, 6 (72); Nebraska, 1; **South,** Maryland, 2; Virginia, 2; North Carolina, 3 (11); South Carolina, 2; Georgia, 3 (23); Florida, 1; Kentucky, 5 (281); Tennessee, 9 (267); Alabama, 2; Mississippi, 2; **West,** Colorado, 1; Arizona, 1; Utah, 1; Washington, 3; California, 18 (279).

Cereal preparations: New England, Vermont, 1; **Massachusetts, 4; Middle Atlantic,** New York, 8 (1,543); New Jersey, 1; Pennsylvania, 3; **East North Central,** Ohio, 4 (883); Illinois, 5 (1,019); **Michigan,** 5 (4,768); **West North Central,** Minnesota, 4 (257); Iowa, 2; Missouri, 2; Nebraska, 2; Kansas, 1; **So th,** North Carolina, 1; South Carolina, 1; Kentucky, 2; Tennessee, 1; Arkansas, 1; Louisiana, 1; Oklahoma, 1; **West,** Montana, 1; Colorado, 2; Arizona, 1; Washington, 2; Oregon, 2; California, 6 (107).

Prepared animal feeds: New England, Maine, 4 (61); **New Hampshire,** 6 (141); Vermont, 17 (628); **Massachusetts,** 27 (822); Connecticut, 11 (218); **East North Central,** Michigan, 68 (518); Wisconsin, 93 (934); **West North Central,** North Dakota, 12 (31); South Dakota, 16 (141); Nebraska, 111 (1,441); Kansas, 137 (1,885); **South Atlantic,** Delaware, 12 (324); Maryland, 33 (657); West Virginia, 10 (241); Florida, 24 (791); **West South Central,** Louisiana, 14 (675); Oklahoma, 44 (681); **Mountain,** Montana, 9 (91); Wyoming, 2; Colorado, 60 (705); Arizona, 13 (362); Utah, 23 (246); Nevada, 4; **Pacific, Washington,** 50 (749); Oregon, 54 (876).

Flour Production Statistics in Detail

The Southwest

Number of flour mills, capacity ratings, amount of flour produced and wheat ground by mills in Kansas, Oklahoma, Nebraska and Texas during the crop year ended June 30, 1950, as reported to The Northwestern Miller. (Output of nonreporting mills of 200 sacks and less daily capacity estimated to be at the same rate of activity as reporting mills of similar capacity rating):

CROP YEAR PRODUCTION

Crop Year Production Ended June 30, 1950

Group or state	No. mills reporting	Annual capacity, sacks	Annual output, sacks	Pct. of activity	Pct. of decrease
Kan.	67	43,960,300	34,684,469	78.9	22.4
Texas	28	20,130,300	13,749,019	68.3	24.9
Okla.	24	12,723,200	10,700,279	84.1	10.5
Neb.	23	7,584,700	5,703,695	75.2	22.0
Greater K. C.	8	17,506,700	15,178,382	86.7	12.6
Ft. Worth-Dallas	5	7,352,800	5,463,163	74.3	14.3
Wichita	3	4,909,700	4,448,211	90.6	6.6
Salina	4	4,250,100	4,220,409	99.3	10.3
Omaha	3	2,955,900	2,202,216	74.5	29.7

KANSAS†

Crop Year Ended June 30, 1950

(000's omitted)

No. mills	Capacity rating, sacks	Daily capacity, sacks	Flour production, sacks	Wheat consumption, bu.	Pct. activity
34	2,000 and over	146,534	31,208	73,518	83.6
15	1,000 to 2,000	22,381	3,132	7,332	54.9
5	400 to 1,000	3,199	335	795	41.3
3	less than 400	705	7	18	3.8
57		172,819	34,684	81,665	78.9

†Including Kansas City, Kansas, mills.

TEXAS

Crop Year Ending June 30, 1950

(000's omitted)

No. mills	Capacity rating, sacks	Daily capacity, sacks	Flour production, sacks	Wheat consumption, bu.	Pct. activity
14	2,000 and over	67,750	12,005	27,762	69.6
5	1,000 to 2,000	6,640	1,282	3,917	75.8
9	Less than 1,000*	4,630	461	1,080	39.1
28		79,020	13,749	31,860	68.3

OKLAHOMA

Crop Year Ending June 30, 1950

(000's omitted)

No. mills	Capacity rating, sacks	Daily capacity, sacks	Flour production, sacks	Wheat consumption, bu.	Pct. activity
12	2,000 and over	40,450	9,441	21,894	91.6
3	1,000 to 2,000	4,050	685	1,596	66.5
9	Less than 1,000*	5,500	573	1,308	40.9
24		50,000	10,700	24,799	84.1

NEBRASKA

Crop Year Ending June 30, 1950

(000's omitted)

No. mills	Capacity rating, racks	Daily capacity, sacks	Flour production, sacks	Wheat consumption, bu.	Pct. activity
5	2,000 and over	19,700	4,240	9,892	84.6
4	1,000 to 2,000	5,350	949	2,235	69.7
5	400 to 1,000	2,970	409	965	52.7
5	200 to 400	1,350	97	230	28.7
4	Less than 200	400	7	20	7.4
23		29,770	5,703	13,343	75.2

*Only one mill was active in these categories. In order to avoid disclosure of individual operations the figures are combined with the next higher capacity group.

CAPACITY OPERATED

Percentage of output as related to full capacity (based on 300 running days) of mills in the Southwest for the crop year ending June 30, 1950, with previous years for comparisons:

	2,000 and over	1,000 to 2,000	400 to 1,000	200 to 400	Less than 200	Average
1949-50						
Kan.	83.6	54.9	41.3	3.8	**	78.9
Texas	69.6	75.8	39.1	**	**	68.3
Okla.	91.6	66.5	40.9	**	**	84.1
Neb.	84.6	69.7	52.7	28.7	7.4	75.2
1948-49						
Kan.	102.0	83.5	51.1	..	11.8	96.9
Texas	91.3	80.4	50.8	..	..	85.8
Okla.	101.0	88.9	55.9	25.3	..	94.0
Neb.	111.1	89.5	44.2	18.6	7.7	99.7
1947-48						
Kan.	112.7	111.3	87.8	21.1	30.5	111.1
Tex.	105.0	109.0	85.9	5.0	11.3	102.4
Okla.	116.4	111.0	79.2	52.5	...	110.9
Neb.	118.2	116.6	69.4	40.7	32.0	104.5
1946-47						
Kan.	113.9	109.2	102.8	21.2	28.7	111.3
Tex.	113.1	104.9	92.3	8.3	8.7	109.2
Okla.	116.2	118.8	92.9	47.9	3.6	113.1
Neb.	118.1	119.0	99.7	40.5	28.2	105.1

**Only one mill was active in these categories. In order to avoid disclosure of individual operations the figures are combined with the next higher capacity group.

PRODUCTION AT CENTERS

Capacity and production at the principal milling centers during the crop year ended June 30, 1950, with previous years for comparison (Kansas City figures include both Kansas City, Mo., and Kansas City, Kansas).

KANSAS CITY

	Sacks: Yearly capacity	Flour made	Pct. of activity
1950	17,506,700	15,178,382	86.7
1949	17,904,800	17,349,823	96.9
1948	16,446,900	18,289,008	111.2
1947	15,705,300	18,045,427	114.9
1946	15,124,300	14,927,727	98.7
1945	15,028,200	13,961,223	92.9
1944	15,137,500	13,336,224	88.1
1943	15,010,600	13,104,302	87.3
1942	14,902,500	13,024,819	87.4
1941	14,946,100	12,644,477	84.6
1940	14,959,400	13,672,954	91.4
1939	14,766,200	14,146,110	95.8
1938	15,980,300	14,343,384	89.7

FORT WORTH-DALLAS

1950	7,352,800	5,463,163	74.3
1949	7,320,600	6,376,291	87.1
1948	7,166,450	7,468,948	104.5
1947	7,255,250	7,545,496	104.0
1946	6,719,500	6,618,769	98.5
1945	6,648,000	6,129,532	92.2
1944	6,700,400	5,574,814	83.2
1943	6,173,000	5,148,335	83.4
1942	6,512,600	4,539,346	69.7
1941	6,883,100	3,861,453	56.1
1940	6,437,800	3,933,504	61.1
1939	6,444,600	3,699,206	57.4
1938	6,264,300	4,529,156	72.3

WICHITA

1950	4,909,700	4,448,211	90.6
1949	5,033,000	4,766,268	94.7
1948	4,774,380	5,027,423	105.3
1947	4,739,240	5,521,215	116.5
1946	4,734,540	4,805,566	101.5
1945	4,734,600	4,299,064	90.8
1944	4,738,600	4,487,543	94.7
1943	4,740,300	4,252,053	89.7
1942	4,702,100	4,133,201	87.9
1941	4,707,400	3,836,561	81.5
1940	4,715,400	3,696,877	78.4
1939	4,713,400	3,803,433	80.8
1938	5,228,400	4,365,729	83.5

SALINA

1950	4,250,100	4,220,409	99.3
1949	4,285,410	4,705,387	109.8
1948	4,273,240	4,982,604	116.6
1947	4,224,100	4,697,208	111.2
1946	3,510,960	3,574,160	101.8
1945	4,581,500	4,338,765	94.7
1944	4,568,800	4,865,781	106.5
1943	4,837,200	4,261,548	88.1
1942	4,641,400	4,228,335	91.1
1941	4,658,700	3,880,714	83.3
1940	4,664,890	5,010,099	107.4
1939	4,659,450	5,134,718	110.2
1938	4,630,000	4,072,494	89.9

OMAHA

	Sacks: Yearly capacity	Flour made	Pct. of activity
1950	2,955,900	2,202,216	74.5
1949	2,950,720	3,133,671	106.2
1948	2,925,460	3,408,172	116.5
1947	2,774,470	3,282,206	118.3
1946	2,776,160	3,017,687	108.7
1945	2,360,400	3,004,788	127.3
1944	2,381,410	2,862,464	120.2
1943	2,665,280	2,958,460	111.0
1942	2,630,880	2,907,129	110.5
1941	2,643,460	3,050,562	115.4
1940	2,645,250	3,012,943	113.9
1939	2,642,100	2,623,654	99.3
1938	2,765,100	2,494,161	90.2

CONSOLIDATED BY YEARS

Number of active flour mills in the Southwest (including Kansas, Oklahoma, Nebraska and Texas), their combined daily capacity, number of sacks of flour produced, number of bushels of wheat ground and percentage of capacity operated, by years ending June 30:

ALL SOUTHWEST

Crop year	No. mills	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.	Pct. of activity
1950	138	383,609	76,711,604	179,329,003	78.5
1949	166	398,887	95,985,452	220,182,013	93.8
1948	168	388,560	108,436,802	244,563,837	108.8
1947	180	377,625	106,789,024	245,380,447	111.1
1946	185	399,226	88,779,412	203,711,238	97.1
1945	191	354,901	83,308,902	194,513,992	92.2
1944	199	350,144	79,310,519	187,895,163	88.3
1943	213	352,300	74,159,856	171,561,220	82.0
1942	231	354,642	68,681,579	160,222,752	76.6
1941	239	361,747	70,234,099	161,083,859	76.2
1940	255	364,397	71,614,553	164,909,477	77.1
1939	276	368,219	68,737,949	159,290,920	73.1

KANSAS

(including mills located in Kansas City, Kansas.

1950	57	172,819	34,684,469	81,665,081	78.9
1949	67	181,555	44,734,764	102,263,484	96.0
1948	67	179,285	50,932,885	113,884,291	110.6
1947	70	174,065	49,143,112	113,936,798	111.0
1946	72	164,566	29,997,443	91,912,386	95.5
1945	72	163,285	36,734,558	86,592,170	88.3
1944	71	156,625	37,401,991	90,857,762	93.1
1943	74	161,413	34,331,037	79,408,296	82.8
1942	77	157,643	30,802,178	71,663,881	77.1
1941	79	157,143	30,809,806	70,225,991	77.1
1940	87	158,241	31,821,629	73,536,396	79.0
1939	94	160,152	30,346,431	70,528,168	74.4

TEXAS

1950	28	79,020	13,749,019	31,860,099	68.3
1949	37	83,079	18,317,981	41,245,081	85.8
1948	37	82,304	21,648,763	49,164,299	102.4
1947	37	78,189	21,743,865	49,813,152	109.2
1946	38	76,324	18,992,949	44,093,716	97.6
1945	42	76,855	16,746,993	39,447,083	85.9
1944	42	77,812	14,426,388	34,319,102	72.3
1943	44	75,382	12,984,639	30,275,176	67.1
1942	45	77,106	12,382,110	29,347,596	63.5
1941	45	83,437	14,031,983	32,390,123	66.7
1940	45	83,039	14,079,719	32,283,201	66.6
1939	50	84,264	13,160,841	30,336,964	61.3

OKLAHOMA

1950	24	50,000	10,700,279	24,799,142	84.1
1949	26	49,570	11,965,094	27,570,407	94.0
1948	26	48,676	13,851,513	31,665,089	110.9
1947	29	49,176	14,055,308	31,926,050	113.1
1946	29	45,446	11,238,353	25,708,827	97.2
1945	30	44,302	11,778,774	27,131,589	104.5
1944	30	44,038	10,638,656	24,543,088	93.2
1943	30	42,448	9,813,756	22,534,568	90.0
1942	36	43,522	8,706,203	20,377,148	79.0
1941	35	43,698	8,966,812	20,648,879	80.7
1940	37	43,492	8,539,955	19,707,460	77.4
1939	39	44,041	8,209,729	18,827,031	73.2

NEBRASKA

1950	23	29,770	5,703,695	13,343,359	75.2
1949	30	31,783	7,320,262	16,904,425	89.7
1948	30	30,895	8,291,995	19,099,474	104.5
1947	38	31,196	8,339,337	19,195,962	105.1
1946	40	30,160	7,246,669	16,317,029	94.4
1945	41	28,129	6,905,856	16,241,710	96.5
1944	50	29,419	6,701,482	14,857,848	88.7
1943	59	31,307	6,765,569	15,903,147	84.2
1942	67	34,231	6,388,214	14,986,816	73.7
1941	74	35,682	6,628,214	14,397,306	73.7
1940	80	36,466	6,564,234	15,363,784	71.3
1939	87	37,818	6,241,038	14,766,966	64.9

The Northwest

Number of flour mills, capacity ratings, amount of flour produced and wheat ground by mills in Minnesota, North Dakota, South Dakota and Montana during the crop year ended Aug. 31, 1950, as reported to The Northwestern Miller. (Output of non-reporting mills of 200 sacks and less daily capacity estimated to be at the same rate of activity as reporting mills of similar capacity rating):

CROP YEAR, 1949-50

	No. mills reporting		Annual cap., 000's omitted, sacks		Output, 000's omitted, sacks		†Pct. of decr.
	'49-50	'48-49	'49-50	'48-49	'49-50	'48-49	
Minn.*	34	35	20,587	20,590	15,914	17,780	—10.4
N. D.	8	10	4,585	4,508	2,772	3,043	— 8.8
S. D.	5	5	561	521	402	388	+ 3.6
Mont.	12	14	3,830	4,074	3,178	3,469	— 8.3
Mpls.	6	8	14,351	16,207	13,772	12,051	+14.2
Total	65	75	43,964	46,200	36,037	36,731	— 1.8

*Interior mills including Duluth-Superior and St. Paul. †Or increase.

WHEAT CONSUMPTION, 1949-50

	Wheat ground, bu.	Flour made, sacks	Millfeed made, tons
Minn. Int. .	36,680,229	15,913,980	320,559
Minneapolis.	32,364,376	13,772,075	250,421
N. Dakota .	6,384,240	2,771,635	54,470
S. Dakota .	929,842	401,623	8,739
Montana ...	7,273,288	3,177,546	61,811
Totals ...	83,631,975	36,036,859	696,000

1948-49

	Wheat ground, bu.	Flour made, sacks	Millfeed made, tons
Minn. Int. ..	41,767,274	17,780,375	367,335
Minneapolis.	28,319,888	12,051,016	217,044
N. Dakota ..	7,006,744	3,043,093	60,029
S. Dakota ..	905,109	388,476	10,665
Montana ...	7,948,299	3,469,486	65,132
Totals ...	85,947,314	36,732,446	720,205

PERCENTAGE OF CAPACITY OPERATED

Percentage of output to full capacity based on five running days each week for mills of all sizes in the Northwest, by days ending Aug. 31:

	2,000 and over	1,000 to 2,000	400 to 1,000	200 to 400	Less than 200	Average
1949-50						
Minnesota*	81.0	62.4	37.0	17.6	11.5	77.3
N. Dakota.	...	62.8	52.2	...	39.4	60.4
S. Dakota.	...	...	...	...	...	71.6
Montana	110.1	59.0	...	34.6	...	81.9
1948-49						
Minnesota*	92.5	37.9	72.5	13.9	16.2	86.3
N. Dakota.	69.9	70.1	...	...	14.1	67.5
S. Dakota.	...	...	67.6	...	14.0	47.2
Montana	108.8	72.0	...	35.9	...	90.9
1947-48						
Minnesota*	99.4	66.6	69.0	19.7	...	94.0
N. Dakota.	84.8	81.1	...	...	16.4	81.3
S. Dakota.	...	...	70.8	...	21.3	52.1
Montana	106.5	83.3	...	42.0	...	88.9

*Interior mills including Duluth, Superior and St. Paul.

MINNESOTA

Number of flour mills in Minnesota (outside of Minneapolis) together with capacity ratings and amount of flour produced and wheat ground in crop year ended Aug. 31, 1950:

No.	Capacity rating, sacks	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.
16	2,000 and over	73,000	15,021,727	34,712,961
3	1,000 to 2,000.	4,300	682,134	1,477,344
2	500 to 1,000.	1,400	132,100	305,810
3	200 to 500.	600	36,851	83,869
10*	Less than 200	1,750	51,168	120,245
34		81,050	15,913,980	36,680,229

*Includes estimates for all non-reporting mills.

Figures for year ending Aug. 31, 1949:

No.	Capacity rating, sacks	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.
16	2,000 and over	71,700	16,914,301	39,176,075
3	1,000 to 2,000	4,300	416,280	1,561,885
3	500 to 1,000.	1,500	332,828	754,459
4	200 to 500.	900	31,901	77,123
9	100 to 200.	2,046	85,065	197,702
35		80,746	17,780,375	41,767,274

NORTH DAKOTA

Figures for year ending Aug. 31, 1950:

No. mills	Capacity rating, sacks	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.
4	2,000 and over	12,100	2,411,457	5,548,631
2	800 to 2,000.	2,400	305,078	705,584
2	200 to 400.	550	55,100	133,025
8		18,050	2,771,635	6,384,240

Figures for year ending Aug. 31, 1949:

No. mills	Capacity rating, sacks	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.
4	2,000 and over	14,600	2,602,679	5,984,564
2	800 to 2,000.	2,300	412,334	956,736
4	50 to 350.	780	28,080	65,145
10		17,680	3,043,093	7,006,744

SOUTH DAKOTA

Figures for year ending Aug. 31, 1950:

No. mills	Capacity rating, sacks	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.
5	60 to 1,400...	2,210	401,623	929,842
5		2,210	401,623	929,842

Figures for year ending Aug. 31, 1949:

No. mills	Capacity rating, sacks	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.
2	400 to 1,400.	2,000	344,785	803,722
6	70 to 350.	1,220	43,691	101,387
8		3,220	388,476	905,109

MONTANA

Figures for year ending Aug. 31, 1950:

No.	Capacity rating, sacks	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.
3	2,000 and over	7,700	2,153,841	4,882,341
4	1,200 to 2,000.	5,775	865,736	2,017,288
5	200 to 500.	1,800	157,869	373,659
12		15,275	3,177,546	7,273,288

Figures for year ending Aug. 31, 1949:

No.	Capacity rating, sacks	Daily capacity, sacks	Flour made, sacks	Wheat ground, bu.
3	2,000 and over	7,700	2,122,293	4,813,064
5	600 to 2,000.	6,375	1,171,444	2,723,851
6	100 to 500.	1,900	175,749	412,384
14		15,975	3,469,486	7,948,299

DEPENDABLE SERVICE

IN times of plentiful supply or industry-wide shortage—it makes no difference—you can count on Pioneer for dependable service. We'll get you the bags you want when you want them. Burlaps, prints, cottons, twin-towl specialties. Plain or printed according to your specifications. No job is too large or too small for us to handle. Just contact Pioneer, and we'll take it from there.

PIONEER TAILOR-MADE BAGS

COTTONS • USED BAGS

BURLAP • PIONEER PRINTS

CONSOLIDATED BY YEARS
NORTHWEST

Number of active flour mills in Minneapolis, interior Minnesota (Duluth-Superior and St. Paul), North Dakota, South Dakota and Montana, including daily capacity, number of sacks of flour produced, number of bushels ground and percentage of capacity operated, based on five running days each week, by years ending Aug. 31:

Crop year	No. mills	Daily capacity, sacks	Flour made, sacks	Wheat ground, of, bu.	Pct. capacity
1950..	66	173,085	36,036,859	83,631,975	81.9
1949..	76	183,181	36,969,081	85,710,679	80.0
1948..	85	181,201	43,470,032	101,014,599	94.0
1947..	97	187,686	51,397,666	118,185,503	107.8
1946..	104	178,777	43,682,965	97,985,409	96.1
1945..	113	179,348	44,160,380	102,549,883	96.9
1944..	123	174,497	39,309,744	90,160,175	88.3
1943..	132	174,850	36,783,161	84,534,027	82.4
1942..	139	179,242	30,467,382	69,950,627	67.1
1941..	142	179,751	28,581,041	65,619,746	62.5
1940..	145	177,169	29,161,139	66,951,591	64.8
1939..	149	177,129	28,193,207	67,989,474	62.6
1938..	161	206,363	28,116,798	64,553,866	53.4
1937..	190	222,627	27,374,228	62,848,995	48.2
1936..	195	237,116	35,958,955	82,558,825	59.9
1935..	193	239,584	30,405,810	69,808,802	49.9
1934..	187	239,896	33,713,894	77,404,143	55.3

MINNESOTA*

Year ending Aug. 31:

Crop year	No. mills	Daily capacity, sacks	Flour made, sacks	Wheat ground, of, bu.	Pct. capacity
1950..	34	81,050	15,913,980	36,630,229	77.3
1949..	35	80,746	17,780,375	41,767,274	86.3
1948..	42	80,916	19,407,872	44,703,797	94.0
1947..	53	83,736	23,115,532	52,841,378	109.0
1946..	51	81,003	18,837,964	42,598,838	91.5
1945..	51	82,708	19,710,772	45,926,102	93.8
1944..	56	82,408	17,047,061	39,037,772	81.1
1943..	57	81,192	16,498,733	37,947,088	79.6
1942..	59	79,301	13,359,163	30,671,548	66.5
1941..	60	79,478	12,824,272	29,443,489	63.5
1940..	66	79,840	12,930,849	29,588,170	64.5
1939..	70	75,827	13,004,102	29,856,355	67.8
1938..	72	79,766	12,098,751	27,777,746	59.4
1937..	83	92,114	12,486,608	28,654,462	53.1
1936..	88	95,348	14,878,877	34,160,736	61.6
1935..	88	97,573	11,925,191	27,379,266	48.1
1934..	86	95,123	13,624,259	31,321,270	56.4

*Includes Duluth-Superior and St. Paul.

NORTH DAKOTA

Year ending Aug. 31:

Crop year	No. mills	Daily capacity, sacks	Flour made, sacks	Wheat ground, of, bu.	Pct. capacity
1950..	8	18,050	2,771,635	6,384,240	60.4
1949..	10	17,680	3,043,093	7,006,744	67.5
1948..	10	17,680	3,669,012	8,539,871	81.3
1947..	15	21,970	4,849,004	11,107,040	86.8
1946..	16	18,738	3,977,816	9,029,435	83.5
1945..	23	20,708	4,061,316	9,787,771	77.2
1944..	22	20,108	3,420,050	8,071,317	66.6
1943..	25	21,021	3,085,731	7,158,939	57.5
1942..	25	20,923	2,725,094	6,256,590	51.4
1941..	25	20,825	2,454,931	5,363,322	46.4
1940..	24	20,972	2,370,210	5,441,810	44.4
1939..	23	20,678	1,873,447	4,301,401	35.6
1938..	26	21,707	1,930,567	4,432,414	34.8
1937..	39	22,342	2,048,282	4,702,684	35.9
1936..	35	24,471	3,130,694	7,187,813	50.5
1935..	37	24,716	2,299,490	5,279,445	36.6
1934..	34	24,353	2,158,710	5,782,752	40.7

SOUTH DAKOTA

Year ending Aug. 31:

Crop year	No. mills	Daily capacity, sacks	Flour made, sacks	Wheat ground, of, bu.	Pct. capacity
1950..	5	3,210	401,623	929,849	71.6
1949..	8	3,220	388,476	905,109	47.2
1948..	8	3,220	427,747	1,006,463	52.1
1947..	8	3,170	495,102	1,161,549	61.4
1946..	10	3,320	436,549	972,098	51.8
1945..	10	3,320	390,305	936,733	46.2
1944..	14	3,705	357,870	830,259	37.8
1943..	14	3,949	334,061	771,680	33.1
1942..	16	4,391	442,797	1,016,628	39.8
1941..	17	4,292	464,171	1,065,702	42.5
1940..	16	4,557	552,103	1,267,583	47.7
1939..	16	4,508	523,906	1,202,844	45.7
1938..	17	4,283	386,343	887,015	35.3
1937..	21	4,626	361,020	828,871	30.5
1936..	22	4,668	486,068	1,116,017	38.5
1935..	24	5,135	397,561	912,770	30.5
1934..	17	4,292	372,669	855,616	34.2

MONTANA

Year ending Aug. 31:

Crop year	No. mills	Daily capacity, sacks	Flour made, sacks	Wheat ground, of, bu.	Pct. capacity
1950..	12	15,275	3,177,546	7,273,288	81.9
1949..	14	15,975	3,469,486	7,948,299	85.1
1948..	18	16,225	3,677,953	8,488,965	88.9
1947..	21	16,050	4,287,186	9,805,588	105.1
1946..	19	16,156	4,139,461	9,233,564	100.8
1945..	22	18,052	4,134,526	9,468,064	85.4
1944..	26	15,062	3,642,696	8,232,494	94.8
1943..	29	18,474	3,308,467	7,477,132	83.8

MONTANA (Continued)

1942..	32	15,729	2,383,601	5,472,556	59.9
1941..	33	16,650	2,455,943	5,638,642	58.0
1940..	32	17,042	2,823,788	6,483,186	65.2
1939..	32	17,062	2,018,480	6,930,184	46.5
1938..	38	16,033	2,425,988	5,569,870	59.3
1937..	39	18,971	2,413,479	5,541,149	49.8
1936..	42	20,992	2,979,143	6,839,871	56.0
1935..	36	20,276	3,463,110	7,951,014	67.2
1934..	43	21,656	3,241,628	7,442,512	58.9

MINNEAPOLIS

Year ending Aug. 31:

Crop year	No. mills	Daily capacity, sacks	Flour made, sacks	Wheat ground, of, bu.	Pct. capacity
1950*..	6	56,500	13,772,075	32,364,376	95.9
1949..	8	63,560	12,051,016	28,319,588	74.3
1948..	7	63,160	16,287,448	38,275,503	101.1
1947..	8	62,760	18,650,842	43,269,953	117.0
1946..	8	59,560	16,291,175	36,151,474	107.6
1945..	7	53,560	15,863,461	36,431,213	116.6
1944..	7	53,214	14,842,067	33,988,333	109.3
1943..	7	53,214	13,556,169	31,179,188	99.8
1942..	7	58,898	11,656,728	26,533,305	77.5
1941..	7	58,506	10,381,724	23,835,591	69.8
1940..	7	59,094	10,484,189	24,070,842	69.8
1939..	8	59,094	11,193,207	25,698,690	74.1
1938..	8	84,574	11,275,149	25,886,821	52.2
1937..	8	84,574	10,070,839	23,121,829	46.7
1936..	8	91,336	14,484,133	33,254,388	62.6
1935..	8	93,884	12,320,258	22,286,307	51.6
1934..	8	94,472	13,933,538	32,001,746	58.0

*Does not include two idle mills (16,000 sacks).

Mills in the Southwest

KANSAS CITY

Kansas Flour Mills Co.	14,400
Larabee Flour Mills Co. (Monarch mill)	11,770
Midland Flour Milling Co.	4,200
Rodney Milling Co.	7,700
Standard Milling Co.	13,000
Sunshine Biscuits, Milling Div.	4,000
General Mills, Inc., Central Div.	12,500
Total	67,570
Waggoner-Gates Milling Co. (Independence, Mo.)	2,550
Total	70,120

ATCHISON

Blair Milling Co.	4,600
Pillsbury Mills, Inc.	5,500
Total	10,100

SALINA

Weber Flour Mills Co.	4,200
Robinson Milling Co.	2,700
Shellabarger's, Inc.	6,600
Western Star Mill Co.	3,000
Total	16,500

SHERMAN

Fant Milling Co.	2,800
Quaker Oats Co.	2,600
Total	5,400

DALLAS-FORT WORTH

Dallas—Morten Milling Co.	7,200
Russell-Miller Milling Co.	6,000
Fort Worth—Bewley Mills	3,600
Burrus Mill & Elevator Co.	8,400
Universal Mills	3,300
Total	28,500

WICHITA

Kansas Milling Co.	8,000
General Mills, Inc., Central Div.	6,600
Wichita Flour Mills Co.	5,000
Total	19,600

OMAHA

Omaha Flour Mills Co.	4,800
Maney Milling Co.	4,100
Nebraska Consolidated Mills	3,500
Total	12,400

HUTCHINSON

William Kelly Milling Co.	5,000
Larabee Flour Mills Co.	4,900
Total	9,900

Seattle-Tacoma Flour Mills

Note: Daily capacity in sacks. Source: The Northwestern Miller.

Seattle—	
Fisher Flouring Mills Co.	15,000
Novelty Mill Co.	800
Total	15,800
Tacoma—	
Dennett Milling Co. (Idle)	240
General Mills, Inc., Sperry Division	12,000
Total	12,240

U.S. Flour Milling Capacity

United States flour milling capacity is summarized as follows, by states, in The Northwestern Miller's "List of Flour Mills in the United States and Canada," which includes all wheat flour manufacturing establishments in the U.S. with a 24-hour capacity rating of 50 sacks or more known to be active or potentially active on Jan. 1, 1951, as compared with those so recorded on Jan. 1, 1948:

	1948 No.	1948 Capacity	1951 No.	1951 Capacity
Alabama	4	2,470	4	2,670
Arizona	6	2,220	6	2,070
Arkansas	15	1,480	10	860
California	15	17,140	14	18,390
Colorado	25	19,700	15	18,550
Connecticut	2	580	2	580
Delaware	19	1,818	17	1,558
D. of C.	1	800	1	800
Florida	1	.....	1	.....
Georgia	26	5,160	25	5,310
Idaho	29	11,008	25	10,464
Illinois	45	72,755	35	70,207
Indiana	88	31,670	63	29,776
Iowa	18	17,430	13	15,310
Kansas	72	179,560	62	176,675
Kentucky	106	28,288	87	29,887
Louisiana	1	100	1	100
Maine	2	100	2	100
Maryland	69	16,027	61	12,212
Mass.	1	200	2	100
Michigan	118	31,364	104	33,055
Minnesota	59	144,507	58	143,779
Mississippi	3	2,300	2	500
Missouri	82	111,653	51	102,408
Montana	24	17,981	17	15,671
Nebraska	52	36,583	31	33,950
Nevada	3	360	3	360
New Hamp.	1	1,200	1	1,200
N. Jersey	7	2,620	3	2,400
N. Mexico	12	2,260	7	1,550
New York	54	118,116	46	106,286
N. Carolina	171	27,658	160	27,849
N. Dakota	16	18,400	13	17,650
Ohio	131	57,686	111	56,363
Oklahoma	35	50,354	28	50,806
Oregon	21	26,830	20	28,030
Pennsylv'a.	223	30,784	197	27,184
S. Carolina	36	5,640	35	5,970
S. Dakota	13	4,030	11	3,260
Tennessee	113	36,712	105	33,733
Texas	45	84,745	35	82,835
Utah	27	13,995	25	13,930
Virginia	234	37,807	198	30,042
Washington	20	41,700	19	47,650
W. Virginia	53	7,759	42	6,645
Wisconsin	42	10,950	26	11,540
Wyoming	8	2,880	5	2,530
Totals	2,148	1,334,480	1,799	1,282,796

Minneapolis Flour Mills

Note: Daily capacity in sacks. Source: The Northwestern Miller.

Atkinson Milling Co.	5,500
General Mills, Inc., Central Division	20,100
King Midas Flour Mills	2,200
Commander-Larabee Milling Co.	7,700
Pillsbury Mills, Inc.	12,200
A. L. Stanchfield, Inc. (Idle)	3,000
Russell-Miller Milling Co. (Idle)	6,500
Standard Milling Co.	8,000
Total	65,200

Buffalo Flour Mills

Note: Daily capacity in sacks. Source: The Northwestern Miller.

General Mills, Inc., Eastern Division	37,000
International Milling Co.	13,400
Pillsbury Mills, Inc.	23,000
Russell-Miller Milling Co.	9,000
Standard Milling Co.	5,000
George Urban Milling Co.	4,500
Total	91,900

Duluth-Superior Flour Mills

Note: Daily capacity in sacks. Source: The Northwestern Miller.

Duluth Universal — Duluth Universal Milling Co.	1,500
Daisy Mill (King Midas Flour Mills), Minneapolis	8,000
Total	9,500

Chicago Flour Mills

Note: Daily capacity in sacks. Source: The Northwestern Miller.

B. A. Eckhart Milling Co.	6,800
Elam Mills	400
General Mills, Inc., Central Division	8,600
Total	15,800

Canadian Milling Capacity

Note: By provinces. Source: The Northwestern Miller

FLOUR MILLS—1951

	No. mills	Bbls. daily
Nova Scotia	6	150
New Brunswick	7	420
Prince Edward Island	6	260
Quebec	50	12,725
Ontario	128	57,155
Manitoba	29	11,630
Saskatchewan	45	14,755
Alberta	61	19,565
British Columbia	6	2,550
	338	119,210

PREVIOUS TOTALS, BBL.

1950	113,583	1944	102,670
1949	111,559	1943	105,020
1948	108,569	1942	108,420
1947	108,160	1941	109,020
1946	107,815	1940	108,790
1945	108,340	1939	100,225

OATMEAL MILLS
(Daily Capacity, Bbl.)

1951	5,375	1944	5,375
1950	5,375	1943	5,375
1949	5,375	1942	5,375
1948	5,375	1941	5,375
1947	5,375	1940	5,375
1946	5,375	1939	5,125
1945	5,375		

Canadian Wheat Ground

Note: By crop years, Aug. 1 to July 31, in bushels. Source: Dominion Bureau of Statistics.

	Division		Total
	Eastern	Western	Canada
1949-50	45,077,371	45,220,975	90,298,346
1948-49	46,212,946	44,457,370	90,670,316
1947-48	54,342,861	55,862,790	110,205,651
1946-47	62,153,514	65,331,410	127,484,924
1945-46	59,305,498	57,703,838	117,009,336
1944-45	54,626,517	54,837,871	109,464,388
1943-44	52,171,233	54,900,508	107,071,741
1942-43	52,042,152	52,765,649	104,807,801
1941-42	44,611,689	43,272,773	87,884,462
1940-41	44,021,544	43,898,148	87,919,712
1939-40	40,241,848	40,050,860	80,292,708

Canadian Flour Output

Note: By crop years ending July 31, in barrels. Source: Dominion Bureau of Statistics.

	Production	Exports
August	1,750,000	866,199
September	1,857,154	838,052
October	1,858,774	719,950
November	1,950,539	979,098
December	1,628,443	843,990
January	1,550,336	728,751
February	1,606,229	789,143
March	1,850,721	824,930
April	1,628,351	683,575
May	1,694,752	1,162,710
June	1,649,707	893,314
July	1,278,865	712,356
1949-50	20,303,871	10,042,968

	Total Canada	Wheat flour exported
1948-49	20,379,997	10,687,561
1947-48	24,159,696	13,661,573
1946-47	28,588,456	17,660,109
1945-46	26,436,311	13,786,177
1944-45	24,684,403	13,923,832
1943-44	24,288,877	13,464,371
1942-43	23,549,707	12,575,215
1941-42	19,805,741	10,206,778
1940-41	19,597,769	10,288,827
1939-40	17,749,764	6,781,267
1938-39	15,234,065	4,604,345

Canadian Oatmeal Output

Note: Including rolled oats, by crop years, ending July 31, in sacks (100 lb.). Source: Dominion Bureau of Statistics.

Crop years	Production	Exports
1949-50*	1,081,021	231,645
1948-49	1,165,133	295,784
1947-48	1,475,595	790,084
1946-47	2,102,595	1,314,423
1945-46	2,128,362	1,047,661
1944-45	2,157,096	1,345,096
1943-44	1,259,405	423,551
1942-43	1,025,405	161,337
1941-42	1,804,963	1,151,953
1940-41	1,377,948	861,055

*Preliminary.

Canadian Mill Capacity

Note: Daily capacity in barrels. Source: The Northwestern Miller.

Port Colborne	12,000
Keewatin	10,000
Montreal	9,900
Winnipeg-St. Boniface, Man.	9,525
Saskatoon, Sask.	6,825
Calgary	6,600
Medicine Hat, Alta.	5,600
Peterboro, Ont	4,400
Moose Jaw, Sask.	4,200
Toronto, Ont.	3,800
Goderich, Ont	2,500
Humberstone, Ont.	5,000
Lethbridge, Alta.	1,250
Midland, Ont.	2,500
St. Mary's, Ont.	1,000
Brantford, Ont.	800
Vancouver, B. C.	2,400

Besides these large merchant mills, there are several hundred smaller country mills scattered over the various provinces. The total flour milling capacity of Canada on Jan. 1, 1951, was 119,210 bbl.

Canadian Mill Activity

Note: By crop years ending July 31, in barrels. Source: Dominion Bureau of Statistics.

	1948-49		1949-50	
	Output bbl.	% operation	Output bbl.	% operation
August	1,619,752	62.8	1,750,000	65.2
September	2,174,417	87.5	1,857,154	75.9
October	1,959,206	76.8	1,858,774	76.0
November	1,936,427	75.8	1,950,539	76.0
December	1,727,899	67.8	1,628,443	64.3
January	1,468,422	60.1	1,550,336	63.4
February	1,462,175	62.0	1,606,229	67.6
March	1,715,683	63.9	1,850,721	70.2
April	1,586,961	63.4	1,628,351	69.4
May	1,569,841	63.3	1,694,752	66.5
June	1,665,566	64.9	1,649,707	64.1
July	1,443,180	59.0	1,278,865	54.1
Totals	20,329,529	67.3	20,303,871	67.8

Whether it's books or sifting, there are always good reasons behind the popularity of a best seller In the case of Richmond Sifters, these reasons include compact size, easy installation, the use of fractional horsepower motors and years of experience in the manufacture and application of sifting equipment.
Flour millers know that Richmond Gyro-Whip Sifters, such as the one shown, are ideal for such operations as rebolting, scalping, grading, sizing and separating. They are well suited for replacing reels, relieving bolter sections and for installations where maximum capacity is required in a minimum of space. Capacities available are from 5 to 90 square feet of cloth surface per sifter
Super Sifters, in 2, 4, or 6 sections, will modernize the complete bolting line from first break to rebolt.
Feed and cereal millers and special food processors benefit comparatively when operating Richmond Sifters.
Write today for recommendations on your sifting requirements
RICHMOND MANUFACTURING COMPANY
LOCKPORT, NEW YORK

BEST SELLER IN SIFTING—

R-3

U.S. Wheat Ground, Flour and Millfeed Production by Months

Note: Year ending June 30. Based on reports from mills producing approximately 98% of the flour in the U.S. Source: Bureau of the Census, U.S. Department of Commerce.

WHEAT

Expressed in thousands of bushels

	Total	July	August	Sept'ber	October	Nov'ber	December	January	February	March	April	May	June
1949-50	529,568	44,021	46,358	47,337	48,532	44,674	43,369	44,576	41,172	46,596	39,178	42,690	41,065
1948-49	598,353	56,202	57,907	54,291	55,891	52,992	51,986	51,576	45,598	46,685	39,402	39,782	46,141
1947-48	655,910	57,610	60,224	57,296	61,006	54,738	54,729	55,875	48,438	50,111	50,775	52,385	52,923
1946-47	688,204	47,500	51,442	54,210	60,069	57,690	60,647	65,230	57,742	63,944	57,395	56,310	56,025
1945-46	602,203	52,281	54,160	51,885	57,752	52,403	52,974	59,591	59,361	44,975	42,745	36,220	37,556
1944-45	587,463	42,342	46,671	46,463	49,424	48,011	46,485	51,287	46,893	51,284	50,627	54,541	53,435
1943-44	544,138	49,052	42,828	45,565	48,690	48,699	49,463	52,063	46,441	46,020	40,972	41,984	41,359
1942-43	520,240	41,465	40,920	44,563	47,703	43,307	46,069	49,959	44,286	47,927	40,668	35,482	37,393
1941-42	478,499	40,625	39,123	43,247	44,251	37,560	42,403	43,611	38,621	38,194	36,878	36,141	37,842
1940-41	478,895	38,921	40,474	42,268	45,319	38,707	37,078	40,000	36,575	39,792	36,899	39,045	38,819
1939-40	476,263	38,833	43,746	51,101	48,025	37,770	36,848	39,323	35,400	37,812	37,632	38,694	35,079
1938-39	479,161	39,290	42,098	44,235	43,896	40,324	38,357	38,755	35,447	41,068	37,698	39,066	38,927
1937-38	465,524	38,872	39,993	42,467	43,477	40,209	33,538	37,421	34,924	39,589	36,085	35,784	39,165
1936-37	461,977	43,660	42,087	40,055	41,770	36,844	37,832	37,586	34,630	38,605	38,468	34,892	35,548
1935-36	455,507	33,918	37,141	41,686	45,664	38,254	33,123	40,042	38,987	38,273	36,453	35,328	36,638
1934-35	440,665	33,701	38,582	40,371	41,823	37,393	34,323	37,766	34,509	36,309	35,466	35,567	33,746
1933-34	431,560	38,288	30,866	34,473	37,371	37,067	33,493	39,903	36,028	38,320	34,157	37,083	34,476
1932-33	474,409	36,023	41,417	43,015	42,880	39,841	38,006	36,949	33,183	40,705	42,560	40,392	39,487
1931-32	483,991	45,361	44,413	44,569	47,463	45,230	37,157	37,290	35,180	38,669	37,559	35,844	35,805
1930-31	506,976	43,721	47,654	49,382	49,913	42,428	41,307	42,529	37,939	40,137	39,127	36,946	35,893

FLOUR

Expressed in thousands of sacks

1949-50	227,246	18,889	19,826	20,248	20,787	19,100	18,584	19,165	17,705	20,043	16,864	18,360	17,675
1948-49	260,284	24,403	25,171	23,619	24,380	23,099	22,695	22,498	19,849	20,271	17,084	17,225	19,990
1947-48	286,398	25,170	26,200	25,039	26,584	23,916	23,713	24,398	21,196	21,970	22,284	22,880	23,038
1946-47	301,718	22,067	23,859	23,672	26,064	24,928	26,201	28,139	24,965	27,701	24,955	24,641	24,416
1945-46	264,035	22,247	23,205	22,213	24,805	22,488	22,732	25,605	25,511	20,933	19,878	16,890	17,529
1944-45	252,570	18,270	20,147	20,061	21,320	20,681	19,976	21,998	20,138	22,053	21,702	23,376	22,850
1943-44	234,762	17,300	18,435	19,703	21,044	21,033	21,332	22,400	20,010	19,846	17,714	18,117	17,826
1942-43	224,612	17,784	17,577	19,195	20,574	18,652	19,898	21,638	19,169	20,716	17,587	15,391	16,433
1941-42	205,462	17,479	16,840	18,610	18,998	16,103	18,195	18,683	16,619	16,421	15,794	15,490	16,227
1940-41	206,446	16,668	17,407	18,204	19,522	17,125	16,005	17,283	15,803	17,644	17,644	16,848	16,761
1939-40	204,720	16,527	18,663	21,934	18,479	16,764	15,913	16,952	15,729	16,307	16,207	16,687	15,057
1938-39	205,090	16,674	17,954	19,010	18,883	17,382	16,495	16,613	15,204	17,544	16,158	16,691	16,542
1937-38	197,909	16,493	17,009	18,099	18,514	17,048	16,009	15,907	14,841	16,856	15,255	15,163	16,609
1936-37	196,517	18,455	17,930	17,068	17,876	15,517	16,103	16,033	14,771	16,468	16,346	14,782	14,969
1935-36	193,389	14,479	15,841	17,748	19,398	16,217	14,063	16,942	16,466	16,174	15,366	14,835	15,376
1934-35	189,361	14,357	16,962	17,291	17,995	16,094	14,792	16,297	14,894	16,653	15,261	15,300	15,349
1933-34	184,585	16,219	13,169	14,778	16,035	15,907	14,371	17,089	15,419	16,390	14,612	15,882	14,714
1932-33	202,787	15,343	17,650	18,412	18,389	17,089	16,213	15,831	14,143	17,379	18,224	17,203	16,811
1931-32	207,356	19,310	18,930	19,081	20,382	19,386	15,970	16,033	15,076	16,627	16,066	15,168	15,327
1930-31	216,396	18,553	20,213	20,921	21,201	18,001	17,587	18,096	16,154	17,099	16,648	15,709	15,214

MILLFEED

Expressed in thousands of pounds

1949-50	9,183,520	760,304	809,196	826,312	848,822	777,096	755,886	769,584	711,902	804,002	674,968	738,180	706,666
1948-49	10,020,000	942,000	964,000	910,000	932,000	876,000	862,000	856,000	760,000	794,000	668,000	676,000	780,000
1947-48	10,942,000	954,000	1,006,000	958,000	1,022,000	908,000	906,000	930,000	812,000	840,000	852,000	870,000	884,000
1946-47	11,370,800	641,300	712,000	902,900	1,022,700	986,140	1,043,760	1,122,000	982,000	1,102,000	978,000	940,000	938,000
1945-46	9,908,420	924,640	957,240	906,100	1,003,720	914,920	925,100	1,038,080	1,032,920	822,980	584,280	492,800	505,660
1944-45	10,192,209	725,248	798,575	795,783	849,492	828,573	807,183	894,085	815,807	893,834	886,299	954,507	942,823
1943-44	9,355,182	682,257	736,985	776,800	832,679	835,000	852,056	901,486	799,386	792,659	701,802	728,569	713,902
1942-43	8,895,123	713,793	735,516	765,128	817,014	743,560	787,629	847,171	752,936	818,299	693,035	603,659	643,084
1941-42	8,277,481	703,201	674,351	745,899	766,213	650,123	732,746	756,198	669,743	657,985	641,182	628,939	656,814
1940-41	8,294,194	681,822	705,137	735,441	785,828	687,760	639,306	690,728	630,124	686,551	706,944	675,411	669,141
1939-40	8,310,962	689,557	772,787	890,697	752,851	655,454	635,415	682,637	630,066	657,156	656,277	673,073	614,992
1938-39	8,455,725	702,336	743,993	770,077	765,608	704,995	672,015	681,624	625,888	730,612	665,468	693,372	699,737
1937-38	8,380,366	701,642	717,658	761,784	781,689	722,674	673,105	675,728	631,061	710,240	650,595	646,817	707,364
1936-37	8,389,677	793,510	758,322	723,978	749,121	666,240	687,727	681,276	628,005	697,451	704,618	642,595	656,834
1935-36	8,237,836	599,548	659,717	744,779	821,200	692,087	595,761	728,216	709,574	694,897	665,222	650,921	675,913
1934-35	7,752,890	600,486	704,298	716,836	736,619	665,023	601,417	677,904	599,976	634,700	621,828	625,958	597,746
1933-34	7,636,408	680,822	548,544	609,599	656,225	653,267	589,978	706,100	639,724	674,587	607,208	647,205	618,379
1932-33	8,312,708	631,452	731,368	752,259	762,369	691,984	660,411	646,950	572,587	709,357	745,950	711,462	696,558
1931-32	8,464,637	802,424	785,106	781,318	828,114	789,737	645,812	645,881	610,366	671,853	659,666	616,696	627,664
1930-31	9,082,292	774,352	851,494	888,576	899,580	762,108	739,243	761,935	678,795	713,507	702,189	663,303	647,400

U.S. Flour Production at Principal Centers

Note: In sacks. **Source: The Northwestern Miller.**

Flour production in principal manufacturing areas by mills reporting to The Northwestern Miller, with relationships of production to capacity and to the total estimated output of all mills in the U.S. expressed in percentages:

Northwest—	1950	1949	1948	1947	1946	1945
Minneapolis	13,367,010	13,066,517	13,844,079	18,699,256	16,431,801	16,449,807
Interior mills*	24,357,203	24,389,764	28,074,462	33,475,479	29,823,444	31,257,977
Totals	37,724,213	37,456,281	41,918,541	52,174,735	46,255,245	47,707,784
Southwest—						
Kansas City	15,469,443	15,698,440	18,371,114	18,983,333	15,856,116	15,364,136
Wichita	4,518,583	4,356,980	5,631,958	5,674,994	5,194,860	5,088,353
Salina	4,369,051	4,421,461	4,894,331	4,783,475	3,771,633	4,136,513
Interior millst	38,665,246	39,845,803	48,612,010	48,962,061	42,338,081	42,593,105
Totals	63,022,322	64,302,684	77,509,213	78,403,863	67,160,690	67,182,107
Buffalo	25,068,889	26,583,307	26,817,356	27,634,470	25,988,050	26,341,479
Central & S.E. states**	27,891,322	27,911,698	29,080,484	29,794,449	26,812,505	30,996,723
No. Pacific Coast—						
Seattle	3,553,296	3,623,910	4,272,983	4,329,385	3,465,438	3,855,320
Tacoma	2,358,362	2,590,970	3,065,674	3,276,658	5,060,788	4,596,810
Portland	2,198,215	2,450,804	2,780,801	3,737,573	3,370,520	3,776,628
Interior mills††	5,310,198	5,306,403	7,401,599	7,557,535	5,630,800	7,391,761
Totals	13,420,071	13,972,087	17,521,057	18,901,151	17,527,546	19,968,519
Grand totals	167,126,817	170,246,057	192,846,651	206,908,668	183,744,036	192,196,612
Percentage of total U.S. production	§75	73	69	68	66	70
Percentage of capacity operated per 5-day week	89	90	102	111	101	109

*Principal interior mills in Minnesota, including Duluth, St. Paul, North Dakota, Montana and Iowa. **Mills in Illinois, Ohio, Michigan, Indiana, Kentucky, North Carolina, Tennessee, Virginia, Georgia and eastern Missouri. †Mills outside of Kansas City, Wichita and Salina. ††Mills in Washington and Oregon outside of Portland, Seattle and Tacoma. §To be revised.

U.S. Flour Production

Note: By calendar years. Based on reports from mills producing 98% of flour in U.S, 000's omitted. Source: Department of Commerce.

	Wheat ground, bus	Flour output, sacks	Millfeed output, tons
1950	524,524	225,697	4,524
1949	543,475	234,351	4,651
1948	639,476	279,133	5,337
1947	701,799	305,499	5,913
1946	612,006	273,197	4,793
1945	629,822	269,804	5,510
1944	548,237	236,369	4,722
1943	531,512	229,776	4,538
1942	495,314	212,918	4,271
1941	482,339	207,745	4,166
1940	468,706	201,869	4,075
1939	482,283	206,553	4,247
1938	471,169	201,075	4,190
1937	462,284	196,539	4,185
1936	467,968	198,311	4,251
1935	443,137	189,612	3,925
1934	447,307	191,594	3,956
1933	444,783	190,069	3,911
1932	460,980	197,492	4,031
1931	496,763	211,980	4,399
1930	525,126	223,060	4,679
1929	528,731	226,004	4,612
1928	521,448	221,733	4,553
1927	500,850	213,989	4,333
1926	494,181	210,614	4,340
1925	478,036	203,428	4,491
1924	495,319	210,330	4,409
1923*	538,312	224,300	....

*Census of manufactures.

Wheat Flour Production at Principal Centers in the U.S.

Source: The Northwestern Miller. **Note: By calendar years, in sacks.**

	Buffalo	Kansas City	Minneapolis	Toledo	St. Louis	Wichita	Salina	Seattle	Tacoma	Portland
1950	25,068,889	15,469,443	13,367,010	5,821,500	2,304,852	4,518,583	4,369,051	3,553,296	2,358,362	2,198,215
1949	26,583,307	15,698,440	13,066,517	5,842,500	2,387,666	4,356,980	4,421,461	3,623,910	2,590,970	2,450,804
1948	26,817,356	18,371,114	13,844,079	5,977,600	2,810,509	5,631,753	4,894,331	4,272,983	3,065,674	2,780,891
1947	27,634,470	18,983,333	18,699,256	5,617,950	3,090,496	5,674,994	4,783,475	4,329,385	3,276,658	2,727,573
1946	25,948,959	15,856,116	16,431,801	5,458,720	2,620,174	5,194,860	3,771,633	3,465,438	3,060,788	2,370,520
1945	26,341,479	15,364,136	16,449,307	5,974,296	2,581,400	5,088,353	4,136,512	3,855,320	4,596,810	3,776,828
1944	24,849,936	12,756,573	14,782,589	6,106,613	2,265,973	4,630,496	4,872,630	3,537,570	3,999,453	3,381,048
1943	23,990,365	13,717,116	14,436,850	6,067,130	2,286,090	4,571,836	4,699,576	3,575,985	3,840,851	3,535,605
1942	20,408,663	13,693,784	11,693,135	5,581,100	1,651,336	4,209,876	4,517,145	2,759,547	3,356,163	3,336,573
1941	19,953,137	13,410,079	11,019,724	4,418,410	1,395,079	3,892,486	4,479,219	3,522,493	3,843,329	3,364,663
1940	19,214,531	12,176,833	10,273,454	3,991,207	1,501,448	3,478,990	4,511,173	2,608,094	2,767,502	2,704,618
1939	19,969,115	14,202,389	10,896,510	3,932,936	1,737,265	4,010,209	5,165,547	2,847,606	3,935,921	4,199,035
1938	19,992,825	14,659,893	12,438,575	4,059,699	1,529,360	3,775,971	4,604,761	2,265,957	3,326,567	3,928,267
1937	20,093,542	14,371,606	11,135,544	3,987,032	1,887,511	4,496,446	4,422,767	2,297,902	4,009,923	3,645,861
1936	20,433,657	12,157,376	12,647,227	4,104,887	1,861,369	4,239,288	4,143,148	2,469,367	3,362,699	3,622,176
1935	18,584,796	11,898,078	13,006,872	3,428,506	1,658,627	3,710,456	3,636,151	2,118,546	4,160,810	3,228,008
1934	18,865,071	11,479,095	13,880,387	3,817,825	2,006,256	3,526,152	3,463,351	2,390,328	3,622,562	3,239,855
1933	19,171,311	11,938,005	14,275,158	3,940,002	2,162,272	4,066,142	3,228,831	2,025,909	2,823,304	2,206,607
1932	19,186,573	13,881,269	14,165,287	4,369,977	2,100,720	4,867,776	3,728,166	2,337,766	2,528,351	2,511,803
1931	21,709,660	14,771,630	17,878,279	4,309,864	2,799,370	3,246,883	4,291,042	2,559,456	3,693,261	3,270,771
1930	24,049,043	15,239,265	21,162,500	4,659,891	4,021,528	3,660,800	3,743,279	2,512,647	3,369,682	3,258,187
1929	19,860,619	15,538,947	21,161,395	4,528,406	3,857,619	3,674,485	3,906,466	2,883,730	4,468,126	3,577,400
1928	19,717,657	14,827,964	23,997,753	3,821,849	3,220,084	3,564,253	3,794,213	2,992,986	3,961,744	3,215,052
1927	19,662,355	14,467,743	22,618,500	4,135,698	2,751,840	3,905,594	3,179,922	2,582,959	3,377,364	3,505,243
1926	18,956,785	13,111,399	23,114,786	3,922,646	2,828,513	4,022,660	2,859,197	2,292,890	2,907,546	2,491,460
1925	18,546,639	10,604,999	23,636,732	3,430,098	2,442,054	3,183,869	2,584,064	2,361,445	2,270,950	2,578,598
1924	13,697,674	10,227,321	22,891,095	3,564,554	2,500,223	4,034,903	2,210,219	2,862,552	2,527,567	3,964,474
1923	12,666,639	9,578,079	26,437,382	3,175,298	3,445,831	3,654,461	1,910,873	3,303,713	3,044,147	4,146,066
1922	13,137,541	9,227,609	30,659,094	2,646,000	2,975,362	3,757,378	3,398,591	2,884,048	2,852,582	3,873,107
1921	13,118,780	7,772,907	29,148,630	3,277,687	2,951,299	.....	3,278,055	2,093,060	2,902,993	3,183,069
1920	10,276,986	7,050,602	29,406,195	1,823,663	2,324,719	.....	.....	2,650,547	2,728,612	2,744,974
1919	13,109,048	7,111,176	34,301,744	3,054,778	3,524,664	.....	.....	3,036,520	3,305,426	3,586,935
1918	11,667,512	4,840,768	28,251,107	2,191,109	2,740,635	.....	.....	2,529,160	2,809,156	4,345,320
1917	11,055,145	6,595,792	34,517,256	2,897,860	3,173,742	.....	.....	2,179,328	2,793,372	1,793,988
1916	11,536,795	6,166,811	36,341,634	3,062,892	3,421,345	.....	.....	2,134,166	2,800,103	1,777,032
1915	12,917,086	5,616,302	35,464,822	2,855,230	3,289,787	.....	.....	1,746,023	2,281,401	.....
1914	11,208,358	4,658,606	34,827,759	2,907,660	3,074,995	.....	.....	1,996,838	2,671,121	.....
1913	10,011,386	4,497,449	34,646,501	2,562,112	2,932,052	.....	.....	.....	.....	.....

Buffalo Flour Production

Note: By calendar years, in sacks.
Source: The Northwestern Miller.

	1950	1949	1948	1947
Jan.	2,388,864	2,342,085	2,191,379	2,208,099
Feb.	2,120,762	2,032,053	2,027,440	1,811,221
Mch.	2,331,943	2,089,521	1,893,640	2,114,426
April	1,991,511	1,830,665	1,799,933	2,679,936
May	2,008,099	1,964,244	2,086,245	2,407,528
June	2,080,797	2,266,362	2,362,091	2,423,983
July	2,161,623	2,130,493	2,395,131	1,806,419
Aug.	1,688,702	2,283,266	2,465,952	2,404,322
Sept.	2,199,913	2,395,058	2,327,498	2,463,741
Oct.	1,863,934	2,569,790	2,585,573	2,573,890
Nov.	1,976,604	2,398,599	2,309,057	2,502,265
Dec.	2,256,137	2,281,171	2,373,417	2,238,640
Tot.	25,068,889	26,583,307	26,817,356	27,634,470

Kansas City Flour Output

Note: By calendar years, in sacks.
Source: The Northwestern Miller.

	1950	1949	1948	1947
Jan.	1,361,796	1,590,534	1,508,052	1,638,740
Feb.	1,267,000	1,411,211	1,433,708	1,517,917
Mch.	1,298,503	1,391,556	1,274,747	1,638,037
April	1,078,831	1,167,099	1,420,608	1,487,227
May	1,235,284	1,082,558	1,386,669	1,471,265
June	1,129,825	1,390,125	1,494,118	1,548,915
July	1,277,782	1,408,956	1,640,153	1,782,838
Aug.	1,534,170	1,220,482	1,652,844	1,661,298
Sept.	1,300,422	1,184,329	1,523,054	1,573,216
Oct.	1,344,562	1,335,638	1,664,815	1,713,529
Nov.	1,270,458	1,241,664	1,643,151	1,458,978
Dec.	1,370,810	1,284,288	1,729,195	1,491,373
Tot.	15,469,443	15,698,440	18,371,114	18,983,333

Minneapolis Flour Production

Note: By calendar years, in sacks.
Source: The Northwestern Miller.

	1950	1949	1948	1947
Jan.	1,148,621	1,167,576	1,452,328	1,659,001
Feb.	1,046,163	1,056,325	1,258,984	1,472,149
Mch.	1,103,609	989,825	1,198,802	1,696,943
April	909,183	800,718	1,119,162	1,508,745
May	1,101,710	973,537	1,311,594	1,531,128
June	992,214	992,825	1,185,339	1,481,002
July	1,083,268	1,048,491	1,146,392	1,507,372
Aug.	1,489,937	1,139,250	1,289,109	1,517,078
Sept.	1,133,662	1,263,510	693,745	1,694,516
Oct.	1,118,490	1,364,619	792,867	1,741,504
Nov.	1,056,980	1,162,780	1,280,132	1,495,629
Dec.	1,183,773	1,117,051	1,118,725	1,394,189
Tot.	13,367,010	13,066,517	13,844,079	18,699,256

Canadian Flour Production

Note: By calendar years, in barrels.
Source: Dominion Bureau of Statistics.

1950	21,019,574	1945	25,059,216
1949	19,971,464	1944	24,292,051
1948	22,385,632	1943	24,474,696
1947	28,057,463	1942	20,760,396
1946	27,375,239	1941	20,471,347

U.S. Flour Milling Centers

Note: Dates indicate period of supremacy in capacity to produce.

Philadelphia, 1750 to 1800.
Baltimore, Md., 1800 to 1820.
Richmond, Va., 1820 to 1834.
Rochester, N.Y., 1834 to 1860.
St. Louis, Mo., 1860 to 1882.
Minneapolis, Minn., 1882 to 1930.
Buffalo, N.Y., since 1930.

NAPPANEE MILLING CO., Inc.

NAPPANEE **INDIANA**

1885 **1951**

Specializing in the manufacture of highest quality cake flours.

"SERENADE" — "VESTA"
"NAPPANEE SPECIAL-CAKE"
"PEERLESS"

The name "NAPANEE" is "Synonymous" with Quality, and identifies our complete line of Corn Products.

U.S. Calendar Year Flour Production by States

Note: By calendar years. Since 1947 about 96% of totals are reported by the 400 largest mills and the balance estimated. Previously reports were from mills which produced approximately 98% of the flour in the U.S. In sacks, 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

	1950	1949	1948	1947	1946	1945	1944	1943	1942
Kansas	35,151	36,685	51,119	52,124	43,883	40,429	36,926	36,891	32,507
Minnesota	28,103	28,113	31,055	40,080	33,910	35,139	29,126	27,750	23,819
New York	26,992	29,225	30,183	32,476	33,455	32,028	29,891	27,999	26,345
Missouri	20,337	21,906	26,491	27,377	23,020	22,850	18,926	19,876	18,853
Texas	13,497	14,657	19,608	21,609	19,087	18,888	14,897	13,419	12,761
Illinois	12,447	12,082	14,197	14,322	12,649	14,741	13,270	12,336	11,159
Washington	9,118	9,531	11,791	12,630	12,854	13,216	12,192	11,973	10,052
Oklahoma	10,504	10,757	13,149	14,300	12,170	12,037	10,870	9,829	9,055
Ohio	9,567	9,556	9,599	9,142	9,377	9,701	9,211	9,568	9,847
Oregon	4,687	5,033	5,893	7,411	7,095	7,617	6,638	6,649	6,288
Nebraska	5,799	5,777	7,790	8,521	7,379	7,327	6,237	6,561	6,063
Indiana	3,146	3,352	4,155	4,453	4,306	3,671	3,404	3,527	3,746
California	4,600	4,358	4,000	4,860	4,493	4,945	4,725	4,351	4,325
Iowa	†....	3,069	3,720	4,459	4,463	4,407	4,111	3,584	4,071
Montana	3,060	3,076	3,615	4,267	4,121	3,426	2,947	2,771	2,493
Tennessee	†....	3,343	3,784	4,780	4,166	4,250	3,990	3,954	3,821
Michigan	4,253	4,330	4,629	4,452	4,381	4,065	3,308	3,296	3,205
Kentucky	†....	4,187	3,933	4,633	3,637	3,545	3,432	3,504	3,489
Pennsylvania	†....	2,006	2,401	2,834	2,338	2,021	1,464	1,818	2,051
Colorado	†....	4,368	5,540	5,487	4,583	4,266	3,063	2,740	2,320
No. Dakota	2,716	2,784	3,307	4,765	4,188	4,089	3,143	2,997	2,654
Utah	3,844	3,649	3,704	3,693	3,292	3,344	2,901	2,725	2,658
Virginia	†....	2,065	3,462	3,913	3,338	3,319	2,772	3,011	3,250
No. Carolina	†....	2,023	2,246	2,442	1,702	1,700	1,501	1,682	1,902
Wisconsin	2,415	2,299	2,519	2,481	2,101	2,022	2,110	2,119	1,988
Maryland	†....	1,049	1,401	1,437	1,431	1,424	963	829	312
Idaho	†....	1,796	2,259	2,583	2,248	1,867	1,486	1,159	993
Georgia	†....	503	732	753	609	701	611	597	560
So. Carolina	†....	279	319	264	335	310	235	227	236
W. Virginia	†....	†....	....	†133	326	282	213	217	147
Others	20,150	2,493	2,532	2,942	2,340	2,177	1,807	1,817	1,952
U. S.	**225,697	*234,351	*279,133	*305,499	273,197	269,804	236,369	229,776	212,918

*Revised. **Preliminary. †Included under Others.

U.S. Crop Year Flour Production by States

Note: By crop years ending June 30. Since 1947 about 96% of the totals are reported by the 400 largest mills and the balance estimated. Previously reports were from mills which produced approximately 98% of the flour in the U.S. In sacks, 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

State—	1949-50	1948-49	1947-48	1946-47	1945-46	1944-45	1943-44	1942-43
Kansas	35,221	47,718	51,094	49,736	40,433	37,890	38,458	34,944
Minnesota	27,963	28,756	34,076	39,438	33,296	32,477	27,727	26,575
New York	29,317	29,237	29,834	34,246	32,703	30,537	28,989	27,508
Missouri	20,218	25,218	26,431	26,193	21,894	20,667	19,941	19,263
Texas	13,721	17,537	20,601	21,369	18,497	16,759	14,424	12,750
Illinois	12,211	13,306	13,869	13,742	13,207	14,551	12,699	12,058
Washington	9,716	11,156	10,133	12,510	13,417	12,578	12,179	11,457
Oklahoma	10,691	12,064	13,693	13,981	11,262	11,628	10,467	9,672
Ohio	9,668	9,913	9,276	9,410	9,545	9,445	9,173	10,371
Nebraska	5,577	7,289	8,100	8,339	7,022	6,768	6,431	6,438
Oregon	4,738	5,669	6,207	7,631	7,265	7,379	6,438	6,459
Indiana	3,277	3,544	4,128	4,400	3,846	3,399	3,712	3,501
California	4,492	4,171	4,245	4,895	4,549	4,896	4,452	4,461
Iowa	....	....	....	4,782	4,295	4,197	3,944	3,833
Michigan	4,512	4,442	4,485	4,530	4,152	3,732	3,265	3,382
Colorado	2,941	5,010	5,551	5,310	4,202	3,733	2,894	2,532
Montana	3,133	3,543	3,713	4,169	3,932	3,065	2,929	2,746
Tennessee	....	....	....	4,872	3,895	4,188	3,939	3,920
Utah	3,844	3,710	3,483	3,517	3,244	3,226	2,774	2,745
Kentucky	....	....	....	3,779	3,671	3,389	3,486	3,510
Pennsylvania	....	....	....	2,735	2,095	1,774	1,556	2,000
North Dakota	2,746	3,121	3,551	4,728	4,038	3,633	3,056	3,080
Wisconsin	2,321	2,351	2,497	2,291	1,935	2,074	2,106	2,063
North Carolina	....	....	....	1,929	1,602	1,585	1,649	1,787
Virginia	....	....	....	3,711	3,235	2,942	2,863	3,124
Idaho	....	....	....	2,381	3,116	1,638	1,364	983
Maryland	....	....	....	1,415	1,381	1,243	915	512
South Carolina	....	....	....	351	296	299	231	232
Georgia	....	432	549	764	534	692	614	600
West Virginia	....	....	....	311	309	226	236	165
Others*	20,950	23,397	26,184	2,627	2,117	2,084	1,767	1,939
United States	227,327	260,983	286,398	301,718	264,035	252,570	234,762	224,612

*The production for 1949-50, 1948-49 and 1947-48 for Iowa, Tennessee, Kentucky, Pennsylvania, North Carolina, Virginia, Idaho, Maryland, South Carolina, West Virginia and Wyoming is included under Others.

Flour Production, Southwestern Mills, by Months

Note: By 55 representative "interior" mills, together with all mills at Kansas City, Wichita, Salina and Atchison. In sacks. Source: The Northwestern Miller.

	1950	1949	1948	1947	1946	1945
January	5,244,854	6,085,999	6,569,675	6,709,703	6,250,011	5,625,867
February	4,939,306	5,465,554	5,850,456	6,139,151	6,148,027	5,170,412
March	5,431,178	5,497,656	5,801,714	6,767,711	5,417,509	5,798,335
April	4,709,668	4,876,480	6,321,516	6,293,201	5,029,358	5,267,882
May	4,969,712	4,512,369	6,156,678	6,301,905	3,631,236	5,723,078
June	4,818,861	5,389,485	6,451,699	6,174,459	3,676,785	5,677,906
July	5,196,314	5,737,757	6,814,742	7,004,907	6,035,022	5,147,239
August	6,073,472	5,301,614	6,882,354	6,805,425	6,308,413	5,655,149
September	5,347,238	5,391,190	6,528,844	6,452,786	5,720,586	5,477,592
October	5,372,826	5,608,454	6,822,878	6,930,021	6,390,573	6,059,842
November	5,248,862	5,226,745	6,494,102	6,275,925	6,197,592	5,420,410
December	5,670,031	5,219,381	6,814,555	6,548,669	6,355,579	5,838,395
Grand totals	63,022,322	64,302,684	77,509,213	78,403,863	67,160,690	67,182,107

Largest U.S. Milling Companies

Milling companies which own and operate one or more mills in the U.S. with a combined daily capacity of 5,000 sacks or over:

	No. of mills	Capacity
General Mills, Inc., Minneapolis Minn.	18	142,300
Pillsbury Mills, Inc., Minneapolis, Minn.	10	82,300
International Milling Co., Minneapolis, Minn.	12	54,800
Russell-Miller Milling Co., Minneapolis, Minn.	10	42,700
Colorado Milling & Elevator Co., Denver, Colo.	22	39,470
Commander - Larabee Milling Co., Minneapolis, Minn.	6	37,640
Flour Mills of America, Inc., Kansas City, Mo.	6	36,400
Standard Milling Co., Chicago, Ill.	4	27,500
Tex-O-Kan Flour Mills Co., Dallas, Texas	5	27,025
National Biscuit Co., New York, N. Y.	3	22,200
Rodney Milling Co., Kansas City, Mo.	4	19,400
King Midas Flour Mills, Minneapolis, Minn.	3	17,600
Dixie-Portland Flour Co., Memphis, Tenn.	3	17,000
Fisher Flouring Mills Co., Seattle, Wash.	1	15,000
Sunshine Biscuits, Inc., Milling Division, Grafton, Ohio	3	12,550
Centennial Flouring Mills Co., Seattle, Wash.	5	12,400
Quaker Oats Co., Chicago, Ill.	4	11,800
Montana Flour Mills Co., Great Falls, Mont.	5	10,975
Kansas Milling Co., Wichita, Kansas	3	10,200
Acme-Evans Co., Inc., Indianapolis, Ind.	2	10,000
Midland Flour Milling Co., Kansas City, Mo.	3	10,000
Nebraska Consolidated Mills Co., Omaha, Neb.	5	9,900
Igleheart Bros., Division of General Foods Corp., Evansville, Ind.	3	9,500
Bay State Milling Co., Winona, Minn.	1	9,000
Arrow Mills, Inc., Houston, Texas	2	8,400
Consolidated Flour Mills Co., Wichita, Kansas	3	7,900
North Dakota Mill & Elevator, Grand Forks, N. D.	1	7,800
Ismert - Hincke Milling Co., Kansas City, Mo.	2	7,800
Eagle Roller Mill Co., New Ulm, Minn.	2	7,400
B. A. Eckhart Milling Co., Chicago, Ill.	1	6,800
Atkinson Milling Co., Minneapolis, Minn.	1	5,500
Hunter Milling Co., Wellington, Kansas	1	5,200
Mennel Milling Co., Toledo, Ohio	1	5,000
Wichita Flour Mills Co., Wichita, Kansas	1	5,000
William Kelly Milling Co., Hutchinson, Kansas	1	5,000
Gooch Milling & Elevator Co., Lincoln, Neb.	1	5,000
J. Allen Smith & Co., Knoxville, Tenn.	1	5,000
Totals	159	769,460

U.S. Rye Flour Production

Note: By calendar years. Source: Bureau of the Census, U.S. Department of Commerce.

Month 1950—	Grain ground, bu.	Flour output, sacks	Offal produced, tons
	—000's omitted—		
December	415	182	2,394
November	521	190	2,242
October	403	180	2,145
September	419	187	2,254
August	504	224	2,788
July	432	187	2,376
June	397	181	2,289
May	404	180	2,268
April	356	159	1,960
March	392	177	2,051
February	368	164	1,996
January	343	157	1,868
Total, 1950	4,844	2,168	26,631
1949	4,733	2,138	24,254
1948	4,937	2,189	28,006
1947	4,389	1,942	24,618
1946	5,725	2,489	33,925
1945	4,431	2,004	31,364

U.S. Production of Durum Products

Note: By six-month periods. **Source: USDA**

	Durum wheat ground, bu.	Semolina produced	Flour produced	Exports semolina, lb.
		—Sacks—		
1950—				
July-December	11,961,459	5,201,407	†.....	22,556,884
January-June	9,967,224	4,371,220	†.....	2,816,609
1949—				
July-December	11,662,778	*5,074,859	†.....	2,774,541
January-June	10,231,603	4,457,925	†.....	1,113,139
1948—				
July-December	11,452,355	*5,012,266	†.....	2,321,216
January-June	14,181,830	6,354,943	†.....	19,706,136
1947—				
July-December	13,996,975	5,353,104	785,523	5,017,268
January-June	9,936,202	4,026,055	400,063	31,688,505
1946—				
July-December	11,428,936	*5,163,498	**.....	2,950
January-June	9,578,574	3,642,316	723,562	11,876,829
1945—				
July-December	12,663,562	4,171,084	1,315,576	4,282,975
January-June	13,260,803	4,266,212	1,400,803	16,851,523
1944—				
July-December	12,769,977	3,609,752	1,786,888	38,728,665
January-June	9,172,805	3,146,644	784,744	32,794,248
1943—				
July-December	11,235,744	3,613,644	1,199,717	20,846,215
January-June	12,742,102	3,981,044	1,466,562	1,351,985

*Mostly granular flour. †Included in semolina. ‡July through November. **Granular and flour listed in semolina total since most mills continued on an 80% extraction rate throughout period.

Wheat Flour Production & Civilian Consumption

Note: U. S. wheat flour production, deductions for nondomestic use and civilian consumption, by crop years. **Source: USDA**

Year beginning July	Production: Commercial*	Production: Non-commercial†	Production: Total	Net deductions	Civilian consumption from¶: Commercial production: Total	Commercial production: per cap. lb.	Commercial, non-com. production: Total	Commercial, non-com. production: per cap. lb.
	—1,000 sacks§—			—1,000 sacks§—				
1949	237,246	1,652	228,898	25,347	201,899	134.5	203,551	135.6
1948	260,284	1,726	262,010	60,637	199,647	135.4	201,373	136.6
1947	286,398	1,884	288,282	82,723	203,675	140.5	205,559	141.8
1946	304,797	1,652	306,449	99,340	205,457	144.8	207,109	146.0
1945	269,010	2,090	271,100	67,470	201,540	149.0	203,630	150.5
1944	258,386	2,310	260,696	62,286	196,100	151.4	198,410	153.2
1943	242,396	2,442	244,838	42,080	200,136	154.7	202,758	156.6
1942	232,926	3,116	236,042	25,490	207,436	158.8	210,552	161.2
1941	213,819	3,872	217,691	18,607	195,212	146.7	199,084	149.6
1940	216,513	4,442	220,955	13,897	202,616	152.5	207,058	155.8
1939	215,957	4,758	220,715	14,271	201,686	152.4	206,444	156.0
1938	217,280	5,854	223,134	14,312	202,968	154.7	208,822	159.2
1937	210,009	5,676	215,685	11,293	198,716	152.6	204,392	157.0

*Includes new estimates for 1940-44, a period for which adequate estimates had not previously been available. These were developed by Bureau of Census in cooperation with BAE. †Estimated flour equivalent of farm wheat ground for flour, or exchanged for flour, as reported by BAE. ¶Basis census population adjusted for undernumeration of children under 5 and for members of the armed forces not eating out of civilian supplies. §100 lb.

Defense Mobilization Controls

The outbreak of the Korean War in June, 1950, brought a return of government economic controls. Only 4 years after World War II and its controls had ended, businessmen again were faced with the problem of operating under restrictions imposed as part of the defense mobilization program.

The beginning of the mobilization program was Congress' enactment in September, 1950, of the Defense Production Act. This authorized the government to impose price and wage controls, to restrict credit, to set up allocation and priority systems and to act in other ways to further the defense effort. One of the provisions of the act was that ceilings on farm commodity prices could not be set at less than parity or the highest price between May 24 and June 24, 1950, whichever was higher.

Following passage of the defense act, President Truman appointed Alan Valentine, former president of Rochester (N.Y.) University, as administrator of the Economic Stabilization Agency. William H. Harrison, head of International Telephone & Telegraph Corp., was made head of the National Production Authority. Various control functions were assigned to existing federal agencies, with foods and farm products coming under the U.S. Department of Agriculture.

Later Michael V. DiSalle, who had been mayor of Toledo, took over as director of the Office of Price Stabilization, which came under ESA. Cyrus Ching was named chairman of the Wage Stabilization Board.

Voluntary Freeze—The first general action on the price front was a request in December, 1950, for a voluntary freeze of prices at Dec. 1 levels. Shortly after this, it was announced that processors and distributors of agricultural commodities were included in coverage of the voluntary pricing standards even though the commodities were selling at less than the legal minimum ceilings. Profits in 1946-49 were set as a basis for permitted increases in prices.

Meanwhile, the mobilization set-up was growing. Charles E. Wilson, left his position as president of General Electric Corp. to take over top control. He was named director of the new Office of Defense Mobilization. W. Stuart Symington, chairman of the National Security Resources Board, then lost some of his powers in the new arrangement. Mr. Harrison was made administrator of the new Defense Production Administration, which, along with ESA, was directly under ODM. Manly Fleischmann, who had been general counsel of NPA, became NPA administrator.

Disagreement over price policy developed between Mr. DiSalle and Mr. Valentine as Mr. DiSalle pressed for immediate controls while Mr. Valentine took a more cautious approach. Mr. Valentine soon left his post as head of ESA and Eric Johnston, motion picture industry trade association leader, assumed the position of administrator.

Control Organization Grows — Appointments to control positions in specific fields also were being made. Earl C. Corey of the North Pacific Millers Assn. and former head of the Commodity Credit Corp. office at Portland, was made head of the grain, feed and agricultural chemicals branch of OPS. Later John B. Hutson, former under-secretary of agriculture, was appointed director of the food and restaurant division of OPS.

Joseph G. Schmitz, vice president and general flour sales manager of the southwestern division of General Mills, Inc., Oklahoma City, was named to serve at least temporarily as chief of the flour price section in OPS. Harold D. Le Mar, vice president of the P. F. Peterson Baking Co., Omaha, was appointed to serve temporarily as baking industry price chief.

Lloyd S. Riford, head of the Beacon Milling Co., Cayuga, N.Y., had been appointed earlier as feed price consultant.

Mr. Riford later had to leave the position because of illness. He was succeeded by Dinsmore Worthing, vice president in charge of purchasing for the Chas. M. Cox Co., Boston.

Mandatory Controls—With a staff being set up, the government moved ahead on the control front, and mandatory price and wage controls were imposed early in 1951.

On Jan. 26 OPS issued its General Ceiling Price Regulation, which basically froze prices of all sellers at the highest delivered prices reached in the base period of Dec. 19-Jan. 25.

However, sales of raw agricultural commodities were excluded from coverage at the producer level, and processors and distributors of farm commodities selling at less than the legal minimum ceilings were permitted to "pass through" farm price increases. The flour milling, baking, feed and grain industries were included under this pass-through provision.

Soon after the GCPR was issued, a stream of amendatory, supplementary and additional regulations began flowing.

Certain commodities, like soybeans and soybean oil meal, were brought under specific control regulations. Farm commodities selling at less than parity were exempted from controls as long as they were in the raw and unprocessed state. A supplementary order for the feed industry, providing for adjustments in manufactured feed ceiling prices on the basis of ingredient ceiling price or market value, was issued.

Many other regulations revising the original order and covering certain products or situations also were issued by OPS.

In the meantime, government price officials and industry consultants were studying or preparing various specific orders. A flour price regulation, adapted from the old OPA flour order, was prepared for use when it was needed. Provisions of a millfeed price order were being worked out, and work went forward on regulations which might be needed for other commodities and products. A general manufacturers' price ceiling regulation and margin regulations for the wholesale and retail grocery industries were in preparation.

Star of the West Milling Co.

●

High Grade Michigan Soft Wheat Flours

●

FRANKENMUTH, MICHIGAN

U.S. Exports of Wheat Flour to Countries of Destination for 1933-1950

Note: In sacks, 000's omitted. Included are: Flour made entirely from U.S. wheat (including flour made from wheat imported in bond), other wheat flour, and exports under the Department of the Army Civilian Supply Program for 1948 and 1949. Not included are: Semolina for the years 1940-49, shipments to the U.S. Armed Forces and U.S. government agencies and shipments between continental U.S. and the U.S. territories and possessions. Source: Bureau of the Census, U.S. Department of Commerce.

	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
Afghanistan	....	....	....	....	....	....	....	....	....	....	....	....	....	231	....	....	....	....
Albania	....	....	....	....	....	....	....	....	....	....	....	....	154	13	....	1	....	32
Argentina	....	....	....	....	....	....	....	....	....	....	....	....	....	....	6	1	....	....
Austria	25	....	....	....	....	....	....	....	....	....	....	....	....	793	1,755	2,868	1,419	839
Azores & Madeira Islands	6	2	2	12	12	8	2	18	20	20	24	36	....	21	54	45	38	23
Barbados	2	....	....	....	8	12	14	6	4	24	20	28	3	16	34	37	40	35
Belgian Congo	14	25	20	22	24	31	29	45	52	69	65	104	109	79	102	132	106	179
Belgium	14	8	10	10	16	18	32	2	....	....	....	....	336	3,303	3,421	221	1	13
Bermuda	....	6	....	2	....	....	8	6	12	27	12	....	1	....	....	....	....	....
Bolivia	4	4	....	4	39	20	14	8	12	10	4	7	451	362	453	329	336	492
Brazil	327	316	137	135	136	74	89	139	258	167	184	474	2,010	4,728	8,369	7,299	1,315	37
British Guiana	....	....	2	....	2	8	4	2	4	....	....	....	1	....	....	....	....	89
British Honduras	4	....	2	2	18	31	47	35	76	84	84	83	64	43	51	47	60	64
British Malaya	....	....	....	....	....	....	....	....	....	....	....	....	....	16	989	88	....	....
British W. Africa*..	196	155	196	235	237	206	263	137	183	186	145	198	203	122	214	215	622	689
Other B. W. Indies**	12	6	....	16	10	10	14	....	4	14	....	1	1	1	....	1	....	1
British S. Africa†	....	2	2	2	2	2	4	4	69	31	....	....	3	....	275	19	3	....
Canada (Newfoundl'd and Labrador)	135	196	224	273	320	394	376	316	296	107	115	388	132	76	107	88	25	68
Canary Islands	12	16	4	2	4	....	....	8	....	....	....	....	22	28	....	....	....	....
Ceylon	....	....	....	....	....	....	....	....	....	....	....	....	....	391	3,183	....	....	....
Chili	16	....	....	2	2	8	12	....	....	....	....	....	1	....	58	109	79	76
China	80	686	16	12	33	441	2,642	2,948	2,012	....	....	....	412	1,994	689	1,788	161	....
Colombia	6	8	12	10	16	16	32	24	18	26	28	81	382	83	388	291	77	174
Costa Rica	169	196	153	182	198	214	226	215	233	166	218	290	363	158	210	265	237	235
Cuba	1,462	1,735	1,977	2,005	2,062	1,942	2,048	1,989	2,171	2,789	2,962	2,834	4,486	3,419	3,663	2,317	2,626	2,131
Czechoslovakia	....	....	....	....	....	....	....	....	....	....	....	....	237	987	118	1	....	....
Denmark	84	63	22	20	4	6	8	....	....	....	....	....	....	....	145	3	....	178
Dom. Republic	125	104	106	98	88	92	103	98	102	112	122	281	271	204	256	230	149	264
D. Ind. (Indonesia)††	2	2	2	....	....	2	4	2	4	....	....	....	421	542	1,570	1,498	1,373	655
Dutch W. Indies†††	71	71	83	82	89	108	125	79	119	145	185	124	137	120	123	140	121	140
Ecuador	73	76	51	132	203	206	370	177	261	463	123	519	652	242	686	335	433	440
Egypt	253	265	322	332	321	257	107	29	350	13	....	....	222	495	535	....	13	....
Eire (Ireland)	118	92	10	....	....	2	2	....	....	....	....	....	....	176	1,059	457	36	82
El Salvador	153	104	53	41	57	49	53	49	77	85	115	116	198	71	158	156	157	182
Finland	41	27	20	12	40	26	6	....	43	....	....	....	....	188	1,133	1	....	....
France	2	14	12	24	22	24	26	....	....	....	....	....	....	5,332	5,279	6,060	203	....
French Africa***	69	88	98	129	96	86	29	14	56	16	....	234	353	357	711	484	221	6
French Guiana	2	8	18	18	16	8	....	12	16	14	34	36	30	19	19	17	30	6
French Indo-China	2	....	....	....	....	....	....	....	....	....	....	....	53	....	....	....	23	....
French W. Indies	276	280	208	206	231	255	126	216	443	274	191	400	465	293	341	531	643	111
Germany	45	35	37	33	34	8	2	....	....	....	....	....	9	3,342	6,366	14,672	2,263	4
Gibraltar	....	....	....	2	6	4	4	....	....	....	....	....	1	....	....	....	....	....
Greece	6	20	35	22	22	30	49	16	....	....	....	....	155	1,200	2,622	4,131	2,742	1,088
Guatemala	235	255	194	141	204	204	213	172	182	219	180	195	341	166	315	379	326	295
Haiti	241	241	211	252	200	160	179	148	154	174	174	143	432	218	301	375	434	401
Honduras	59	61	55	40	26	36	41	26	33	26	36	56	76	48	77	63	84	82
Hong Kong	584	357	135	63	402	449	766	398	700	....	....	....	6	421	79	17	408	37
Hungary	....	....	....	....	....	....	....	....	....	....	....	....	....	1	23	1	....	....
Iceland	....	4	4	2	....	10	16	45	57	49	53	33	11	....	47	41	117	107
India	....	....	....	....	....	....	....	....	....	....	....	....	1	608	1,878	1,866	3	6
Iraq	....	....	....	....	....	....	....	....	....	....	....	....	22	....	....	....	....	....
Iran	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	207	14	1
Italy	161	16	8	....	....	24	2	....	....	....	....	1	367	3,952	8,622	6,966	4,187	735
Jamaica	6	4	6	4	22	65	41	8	4	20	63	48	197	198	393	413	495	605
Japan	2	8	10	4	18	2	372	....	27	....	....	....	....	....	....	5,923	1,701	85
Korea	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	957	429	....
Kwangtung	67	55	....	2	29	....	539	....	....	....	....	....	....	....	....	....	....	....
Lebanon	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	197	....	58
Liberia	....	....	....	....	....	....	....	....	....	....	....	....	....	4	....	67	10	15
Malta, Gozo, Cyprus	47	43	14	2	4	20	2	....	....	....	....	....	....	....	2	....	....	....
Mexico	6	29	31	14	41	10	14	23	21	10	55	1,305	525	1,276	539	164	28	12
Netherlands	220	159	200	620	913	933	1,776	359	....	....	....	....	16	1,466	3,949	3,699	1,197	1,590
Nicaragua	113	116	100	73	77	61	109	112	118	112	159	144	162	111	154	125	109	146
Norway	257	286	202	202	259	263	575	359	....	....	....	....	196	871	948	679	932	1,194
Palestine	37	35	53	51	79	110	214	33	31	....	....	....	....	6	....	191	167	318
Panama (including Canal Zone)	239	233	245	261	247	253	286	304	399	446	253	247	303	290	285	297	248	235
Peru	22	49	34	32	30	40	39	34	39	28	33	150	50	71	147	150	46	41
Philippine Rep.	994	953	486	711	1,033	1,723	2,078	1,755	1,759	....	....	....	1,038	2,573	2,625	3,286	2,349	1,837
Poland & Danzig	....	....	....	....	....	....	....	....	....	....	....	....	291	1,395	2,248	....	2	....
Portugal	2	4	6	8	4	6	6	10	8	10	2	8	99	534	929	859	98	32
Portuguese Africa¶	14	12	18	16	18	18	16	10	31	25	63	138	83	81	248	217	202	369
Port. Asia	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	42	115
Saudi Arabia	....	....	....	....	....	....	....	....	....	....	....	....	3	54	67	98	75	313
Spain	2	....	....	....	2	111	18	....	31	....	....	....	1	162	....	1	....	....
Spanish Africa	....	....	....	....	....	....	....	....	....	....	....	....	55	119	....	....	2	....
Surinam (Dutch Guiana)	49	41	45	45	47	59	72	51	67	84	87	98	91	28	33	63	50	55
Sweden	6	8	4	4	4	8	8	....	....	....	....	....	....	1	216	53	....	....
Switzerland	....	....	....	....	....	....	....	....	74	....	....	....	10	315	1,141	266	2	2
Syria	....	....	....	....	....	....	....	....	....	....	....	....	....	....	143	157	....	....
Taiwan	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	104	133
Tangier	....	....	....	....	....	....	....	....	....	....	....	....	301	353	61	87	27	33
Trieste	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	599	67	173
Trinidad & Tobago	4	4	4	10	8	39	10	4	2	4	....	14	2	6	11	8	3	22
Turkey	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	106	228
U. K.****	137	129	104	84	188	396	133	60	....	6	670	2,432	2,388	2,910	3,876	3	1,402	831
U.S.S.R.	....	....	....	....	....	....	....	....	....	51	1,876	5,226	2,051	....	....	....	....	....
Venezuela	367	363	375	414	496	622	782	819	776	625	653	1,134	1,074	1,076	1,341	1,467	1,076	1,281
Yugoslavia	....	....	....	....	....	....	....	....	....	....	....	....	974	892	....	27	37	13
Totals	7,767	8,159	6,476	7,203	8,751	10,245	15,194	11,317	11,484	8,599	13,107	16,917	24,562	49,661	76,367	75,055	32,218	19,865
Lend Lease	....	....	....	....	....	....	....	....	260	1,857	6,123	4,568	3,430	82	....	....	....	....
UNRRA	....	....	....	....	....	....	....	....	....	....	....	....	2,555	9,386	....	....	....	....

Totals include UNRRA and Lend Lease exports. †British South Africa (Union of South Africa and other South Africa). *British West Africa (Gold Coast, Nigeria and other British West Africa). **Other British West Indies (all except Barbados, Bermuda, Trinidad and Tobago and Jamaica). ††Dutch East Indies (Java and Madura). †††Dutch West Indies (Curacao and Aruba). ***French Africa (Algeria, Cameroon, Madagascar, Tunisia and other French Africa). ¶Portuguese Africa (Mozambique, Angola and Cape Verde Islands). ****United Kingdom (England, Wales, Channel Islands, Wight and Man, etc., Scotland and North England).

U.S. Exports of Wheat to Foreign Countries for the Years 1933-1950

Note: Included in 1948, 1949 and 1950 only are exports under the Department of the Army Civilian Supply Program. Not included are: shipments to the U.S. Armed Forces and U.S. government agencies and shipments between continental U.S. and U.S. territories and possessions. In bushels (000's omitted). Source: Bureau of the Census, U.S. Department of Commerce.

	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
Aegean Islands	....	....	....	....	....	....	....	....	....	....	....	....	....	75	....	....	....	....
Albania	....	....	....	....	....	....	....	....	....	....	....	....	719	259	....	....	....	....
Algeria	....	....	....	....	....	....	....	....	....	....	....	....	20,063	5,421	3,740	4,607	....	....
Australia	....	....	....	....	....	....	....	....	....	....	....	....	674	....	....	....	....	....
Austria	....	....	....	....	....	....	....	....	....	....	....	....	....	3,306	9,803	15,998	14,956	11,434
Azores & Madeira	....	....	....	....	....	24	....	....	102	....	....	....	....	119	394	537	437	994
Belgium	926	157	77	30	6,172	12,454	12,905	1,499	....	....	....	....	11,750	7,817	12,562	8,797	13,930	9,304
Bolivia	17	6	....	....	394	....	....	....	....	....	....	....	....	310	317	663	349	402
Brazil	1,291	....	....	....	356	....	....	....	....	....	....	....	588	1,377	....	....	....	5,569
British S. Africa	....	....	....	....	....	....	46	....	....	....	....	....	....	324	219	3,024	....	....
Canada	22	5	14	54	5,605	5,966	2,262	715	3,520	1	1,356	47	178	544	811	663	6,240	1,870
Chili	....	....	....	....	33	....	....	....	....	....	....	....	....	....	....	149	....	....
China	3,570	7,156	....	....	....	619	5,334	1,525	1,024	....	....	....	2,627	9,425	1,545	2,015	....	....
Colombia	3	2	....	....	57	362	354	51	11	75	81	35	152	75	595	387	182	....
Costa Rica	....	....	....	....	1	....	....	....	....	....	3	43	50	....	94	45	67	34
Cuba	25	19	5	9	16	56	72	24	12	60	22	2	71	76	85	71	58	68
Czechoslovakia	....	....	....	....	....	....	....	....	....	....	....	....	2,515	3,885	638	3	....	....
Denmark	....	19	....	....	144	1,815	....	....	....	....	....	....	....	....	664	....	....	961
Dominican Rep.	....	....	....	....	10	35	26	22	12	1	....	6	31	20	49	44	....	9
Ecuador	....	....	....	....	16	....	....	....	....	....	....	1	....	4	225	150	15	7
Egypt	....	....	....	....	....	....	....	....	....	1,014	247	....	1,706	150	475	2,044	2,046	683
Eire	500	3,282	....	399	3,395	11,159	3,843	1,189	....	....	....	....	....	302	2,494	1,206	2,950	2,973
El Salvador	17	196	78	107	182	210	269	68	52	1	23	41	26	....	57	62	40	20
Finland	....	....	....	....	19	28	....	....	....	....	....	....	....	1,584	2,745	....	....	....
France	154	96	....	67	589	867	365	40	....	....	....	....	27,795	20,474	16,055	25,184	7,280	....
French Africa	....	....	....	....	....	....	....	....	....	....	....	....	13,415	18	90	....	....	....
French Morocco	....	....	....	....	....	....	....	....	....	....	....	....	3,401	3,934	318	317	....	....
Germany	....	19	11	....	669	3,215	378	....	....	....	....	....	....	10,200	9,731	115,106	106,474	39,417
Gibraltar	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	112
Greece	274	....	....	....	623	2,153	70	....	....	....	....	....	10,034	8,245	10,733	14,627	13,500	12,880
Honduras	109	38	36	33	45	167	194	108	45	43	7	38	107	75	141	147	172	20
Hong Kong	14	6	3	....	3	12	10	3	....	....	....	....	....	....	....	....	1	1
Hungary	....	....	....	....	....	....	....	....	....	....	....	....	....	....	322	2	....	....
India	....	....	....	....	....	....	....	....	....	....	....	....	299	19,093	12,697	13,224	11,536	3,483
Iran	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	732	....
Italy	126	119	....	204	450	1,394	70	123	....	....	....	....	14,696	28,281	27,796	36,129	33,455	9,164
Japan	664	4,401	....	133	42	....	....	....	1,032	....	....	....	....	....	....	26,524	69,508	30,931
Korea	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4,408	672	....
Mexico	45	8	4	31	996	2,894	1,970	94	4,886	4,446	9,622	8,814	9,258	9,549	10,936	9,548	8,049	16,300
Netherlands	80	37	3	336	7,187	15,500	7,853	914	....	....	....	....	6,806	11,002	12,168	19,197	12,712	18,305
Norway	....	....	....	....	149	671	278	699	....	....	....	....	....	3,223	2,039	4,684	2,864	3,747
Pakistan	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	986	....	....
Palestine (Israel)	....	....	....	....	22	45	83	....	....	....	....	....	323	....	....	336	411	2,559
Panama (including Canal Zone)	....	....	....	252	1	1	....	....	....	....	....	....	....	....	....	....	3	....
Peru	75	108	....	....	587	55	....	....	....	....	....	....	....	1,059	1,000	2,072	4,327	4,796
Philippine Rep.	....	....	....	....	....	....	....	....	....	....	....	....	167	....	....	....	2	....
Poland & Danzig	....	....	....	....	....	....	....	....	....	....	....	....	....	5,988	2,436	....	....	....
Portugal	....	....	....	....	....	1,818	....	56	....	....	....	....	310	3,436	4,491	7,478	8,552	6,727
Portuguese Africa	....	....	....	....	....	....	....	....	....	....	....	....	579	....	....	....	....	1
Portuguese Asia	....	....	....	....	....	....	....	....	....	....	....	....	....	317	....	....	....	....
Saudi Arabia	....	....	....	....	....	....	....	....	....	....	....	....	152	319	249	815	104	82
Spain	....	....	....	....	351	170	305	....	....	....	....	....	579	1,114	....	....	1,660	950
Sweden	....	....	....	....	....	51	....	....	....	....	....	....	....	287	1,210	517	....	....
Switzerland	....	....	....	....	111	131	34	548	305	....	....	....	....	1,430	4,674	5,089	4,710	2,175
Syria	....	....	....	....	....	....	....	....	....	....	....	....	....	....	190	....	....	....
Taiwan	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	219
Trieste	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	347	1,055	1,167
Tunisia	....	....	....	....	....	....	....	....	....	....	....	....	1,506	67	....	....	....	....
Turkey	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	347	3,667	1,101
U. K.	67	1,289	....	197	6,562	24,892	22,876	3,064	1,488	61	25	....	1,445	16,896	11,564	3,667	7,462	17,278
Uruguay	....	....	....	....	....	....	....	....	....	....	....	....	....	1,614	328	....	....	....
U.S.S.R.	....	....	....	10	1	....	3,606	3,621	202	784	178	551	....	....	....	....	....	....
Venezuela	....	....	....	....	....	....	3	....	1	14	....	....	....	....	....	....	4	12
Yugoslavia	....	....	....	....	....	....	....	....	....	....	....	....	10,700	5,073	....	....	....	....
Totals*	7,983	16 970	233	1,879	34,848	86,902	63,214	14,379	13,109	6,615	11,841	10,029	128,764	187,136	169,094	327,593	340,190	205,858
Lend Lease	....	....	....	....	....	....	....	....	....	1,076	499	967	54,112	7,458	....	....	....	....
UNRRA	....	....	....	....	....	....	....	....	....	....	....	....	26,722	58,500	....	....	....	....

Totals include UNRRA and Lend Lease exports. *Totals exceed sum of the figures for individual countries because a number of minor importing countries are not listed. British South Africa (Union of South Africa and other South Africa); Dutch E. Indies (including Java and Madura); Dutch West Indies (Curacao and Aruba); French Africa (Algeria, Tunisia, Cameroon, Madagascar and other French Africa); Portuguese Africa (including Mozambique, Angola and Cape Verde Islands); United Kingdom (England, Wales, Channel Islands, Wight and Man, etc., Scotland and North England).

Suppliers Of Fancy Hard Red Spring Wheat To Discriminating Millers Since 1887

Osborne McMillan Elevator Company

Uniformly Blended Wheats Originating From Our Own Elevators in the Finest Spring Wheat Areas

MINNEAPOLIS — ● — MINNESOTA

U.S. Exports of Wheat Flour to Countries of Destination for 1942-50

Note: In sacks, 000's omitted. Included are: Flour made entirely from U.S. wheat; other wheat flour (including flour made from wheat imported in bond), and exports under the Army Civilian Supply Program for 1948 and 1949. Not included are semolina, shipments to the U.S. Armed Forces and U.S. government agencies and shipments between continental U.S. and the U.S. territories and possessions. Source: Bureau of the Census, U.S. Department of Commerce.

	1942		1943		1944		1945		1946		1947		1948		1949		1950	
	U.S.	Other	U.S.	Other	U.S.	Other	U.S.	Other	U.S.	Other	U.S.	Other	U.S.	Other	U.S.	Other	U.S.	Other
Afghanistan	..	..	..	..	..	..	..	..	231	..	..	..	..	..	..	..	..	..
Albania	..	..	..	..	..	..	153	..	13	..	..	..	1	..	..	..	32	..
Algeria	..	..	..	..	..	..	5	..	..	..	107	..	..	..	..	..	..	..
Austria	..	..	..	..	..	..	..	..	793	..	1,755	..	2,868	..	1,419	..	839	..
Azores & Madeira	..	20	2	22	2	34	..	25	..	21	52	..	45	..	16	22	2	20
Barbados	24	..	20	..	25	1	3	..	5	11	34	..	37	..	40	..	32	..
Belgian Congo	16	53	8	57	24	80	23	86	19	60	72	31	125	7	75	32	13	165
Belgium	..	..	..	..	..	..	336	..	3,197	107	3,421	..	221	..	1	..	13	..
Bermuda	2	25	..	12	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Bolivia	4	6	..	4	2	6	444	7	359	3	405	48	306	23	333	3	487	5
Brazil	9	159	13	171	22	452	1,309	701	3,768	960	8,293	95	7,270	29	1,289	26	33	4
British Guiana	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	74	15
Br. Honduras	82	2	55	29	66	17	18	46	37	6	51	..	47	..	59	1	60	4
Br. West Africa*	74	112	29	116	56	142	82	122	31	90	197	62	214	50	352	271	13	674
Oth. Br. W. Indies†	10	4	..	..	1	..	1	..	1	..	..	..	1	..	3	..	1	..
Br. South Africa‡	..	31	..	..	..	..	..	3	..	..	275	..	19	..	3	..	..	..
Canada (Newfoundl'd and Labrador)	18	89	12	103	40	351	15	118	47	29	103	4	88	..	25	..	11	56
Canary Islands	..	..	..	..	..	..	..	22	42	36	..	..	..	..	..	..	..	..
Ceylon	..	..	..	..	..	..	..	..	391	..	..	..	3,183	..	..	..	..	..
Chili	..	..	..	..	..	..	1	..	..	..	58	..	101	8	79	..	76	..
China	..	..	..	..	..	..	335	77	1,994	..	689	..	1,788	..	161	..	..	..
Colombia	20	6	24	4	32	53	243	139	82	1	375	12	286	5	64	13	110	67
Costa Rica	84	78	106	113	111	178	201	162	71	87	191	19	265	..	170	67	102	133
Cuba	1,809	980	1,601	1,361	2,341	492	4,309	177	3,161	259	3,649	14	2,303	14	1,569	1,057	820	1,311
Czechoslovakia	..	..	..	..	..	..	237	..	983	4	118	..	..	1	..	..	..	..
Denmark	..	..	..	..	..	..	..	..	..	..	144	..	3	..	..	..	178	..
Dominican Rep.	14	98	10	112	7	274	24	247	34	170	222	34	206	24	49	100	69	195
Dutch Indies (Indonesia)**	..	..	..	..	..	..	421	..	417	125	1,463	107	1,492	6	1,363	10	612	2
Dutch W. Indies†	55	90	65	120	26	98	41	95	59	61	1,120	3	137	3	53	67	27	114
Ecuador	433	30	115	8	444	72	606	46	206	36	680	6	334	1	364	69	319	125
Egypt	..	13	..	..	..	..	222	..	476	19	535	..	..	..	13	..	..	..
Eire (Ireland)	..	..	..	..	..	..	..	..	176	..	1,059	..	457	..	36	..	82	..
El Salvador	67	18	90	25	91	25	186	12	68	3	149	9	156	..	149	8	177	5
Finland	..	..	..	..	..	..	..	..	188	..	1,133	..	1	..	..	..	..	..
France	..	..	..	..	..	..	..	..	5,034	288	5,141	138	6,060	..	203	..	..	..
French Africa§	6	10	..	..	5	28	142	64	161	111	480	80	484	..	218	..	..	6
French Guiana	..	14	18	16	15	21	25	5	15	4	19	..	..	..	30	..	6	..
Fr. West Indies	83	186	135	56	273	128	259	206	294	89	332	9	531	..	643	..	111	..
Germany	..	..	..	..	..	..	9	..	3,342	..	6,155	211	14,672	..	2,263	..	4	..
Greece	..	..	..	..	..	..	141	14	1,184	16	2,602	20	4,130	..	2,742	..	1,088	..
Guatemala	186	33	143	37	14	43	294	46	125	41	291	24	379	..	276	50	226	69
Haiti	69	105	55	119	83	330	228	204	56	162	258	43	352	23	168	266	68	332
Honduras	18	8	21	15	20	35	40	36	22	26	68	9	59	4	55	29	31	56
Hong Kong	..	..	..	..	..	..	5	1	415	6	79	..	16	1	406	2	70	..
Hungary	..	..	..	..	..	..	..	..	..	..	..	..	23	..	..	..	..	..
Iceland	..	49	6	47	1	22	..	8	..	..	27	21	41	..	115	2	89	..
India	..	..	..	..	..	..	..	..	392	216	1,753	125	1,866	..	3	..	6	..
Iran	..	..	..	..	..	..	..	..	..	..	..	..	207	..	..	..	..	1
Italy	..	..	..	..	..	1	1,302	65	3,940	12	8,584	38	6,966	..	4,187	..	734	1
Jamaica	18	2	63	..	48	..	112	85	167	32	393	..	413	..	493	2	605	..
Japan	..	..	..	..	..	..	..	..	..	..	..	..	5,923	..	1,701	..	86	..
Korea	..	..	..	..	..	..	..	..	..	..	..	..	957	..	429	..	..	..
Lebanon	..	..	..	..	..	..	..	..	..	..	..	..	197	..	..	..	58	..
Liberia	2	..	4	2	3	3	6	2	3	2	7	..	67	..	6	4	2	13
Mexico	10	..	54	1	1,019	284	508	16	1,273	3	538	..	164	..	27	1	11	1
Morocco, French	..	..	..	6	..	11	..	..	..	2	192	..	85	..	..	..	..	..
Netherlands	..	..	..	..	..	..	16	..	1,466	..	3,947	3	3,699	..	1,197	..	1,589	2
Nicaragua	104	8	145	14	116	29	136	26	93	16	148	6	124	1	94	15	128	17
Norway	..	..	..	..	..	..	27	168	709	162	948	..	679	..	932	..	1,194	..
Palestine (Israel)	..	..	..	..	..	..	..	..	1	5	..	..	191	..	167	..	318	..
Panama	323	123	116	143	74	173	178	125	159	131	256	29	295	2	166	82	124	111
Peru	4	24	..	33	..	150	13	37	16	56	133	14	150	..	45	..	32	9
Philippine Rep.	..	..	..	..	..	..	1,029	9	2,546	27	2,621	4	3,286	..	2,346	2	1,980	..
Poland & Danzig	..	..	..	..	..	..	291	..	1,390	5	2,248	..	..	..	2	..	..	..
Portugal	2	8	..	2	1	8	47	52	278	257	904	21	859	..	95	3	24	8
Port. Africa***	..	26	..	63	..	138	..	111	19	61	243	8	252	..	200	14	364	15
Portuguese Asia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	115
Saudi Arabia	..	..	..	..	..	..	..	3	51	3	60	7	92	6	68	7	299	12
Spain	..	..	..	..	..	..	..	..	147	15	1	..	..	..	..	..	..	..
Spanish Africa	..	..	..	..	..	..	..	54	54	66	..	..	2	..	..	..	..	..
Surinam	33	51	49	38	13	85	28	63	7	21	30	3	63	..	17	33	20	32
Sweden	..	..	..	..	..	..	10	..	1	..	216	..	53	..	..	..	..	..
Switzerland	..	..	..	..	..	..	10	..	315	..	1,141	..	266	..	2	..	..	2
Syria	..	..	..	..	..	..	..	..	..	..	..	..	187	..	..	..	..	..
Taiwan (Formosa)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	133
Tangier	..	..	..	..	..	..	98	203	274	79	59	2	82	5	16	11	32	1
Trieste	..	..	..	..	..	..	..	..	..	..	..	..	599	..	66	1	101	12
Trinidad, Tobago	2	2	..	..	14	..	2	..	6	1	6	5	8	..	1	2	15	7
Turkey	..	..	..	..	..	..	..	..	..	..	..	..	..	..	106	..	228	..
U. K.****	..	6	670	1	2,411	20	2,266	122	2,741	168	3,860	16	3	..	1,396	6	831	..
U.S.S.R.	..	..	1,876	..	5,326	..	2,051	..	..	..	..	..	..	..	..	..	..	..
Venezuela	194	432	160	495	118	1,017	389	685	668	468	1,297	43	1,431	36	449	627	324	957
Yugoslavia	..	..	..	..	..	..	974	..	892	..	..	..	27	..	17	22	6	7
Totals	5,684	2,915	9,786	3,321	12,069	4,848	20,013	4,549	45,922	4,639	75,945	1,322	74,798	357	29,288	2,930	15,299	4,566
Lend Lease	1,849	9	6,039	84	4,548	20	3,212	218	82	..	..	..	..	..	..	..	..	..
UNRRA	..	..	..	..	..	..	2,478	77	9,370	16	..	..	..	..	..	..	..	..

Totals include UNRRA and Lend Lease exports but do not include shipments to U.S. armed forces abroad.

*British West Africa includes Gold Coast, Nigeria and others. †Other British West Indies except Barbados, Bermuda, Trinidad and Tobago. ‡British South Africa (Union of South Africa and other South Africa). **Dutch East Indies (includes Java and Madura). ††Dutch West Indies (includes Curacao and Aruba). §French Africa (includes Algeria, Tunisia, Madagascar and other French Africa). *** Portuguese Africa (includes Mozambique). ****England, Wales, Channel Islands, Wight and Man, etc., Scotland and Northern Ireland.

Canadian Wheat Flour Exports

Note: By crop years ending July 31, in barrels. Source: Dominion Bureau of Statistics.

	1949-50	1948-49	1947-48
U. K.	4,287,612	5,308,362	8,552,546
Aden	.....	16,396	100
Br. E. Africa	.....	1,454	1,675
Br. S. Africa	229	50,547	14,278
Gambia	821	.....	1,046
Gold Coast	51,740	41,668	14,871
Nigeria	1,878	2,525	2,329
Sierra Leone	21,558	15,025	17,943
So. Rhodesia	.....	459	.....
Bermuda	26,468	25,454	26,478
India	61	552	927,680
Pakistan	.....	102,932	.....
Ceylon	476,413	.....	.....
Br. Malaya	223,122	.....	.....
Br. Guiana	205,041	201,408	200,191
Br. Honduras	10,091	7,724	7,690
Br. W. Indies	1,242,112	1,093,979	1,174,835
Ireland (formerly Eire)	.....	4,351	243,415
Gibraltar	12,314	25,554	274
Hong Kong	357,982	209,962	8,340
Newfoundland	.....	233,776	385,678
Palestine	.....	.....	2,036
Total British Empire	6,917,442	7,341,229	11,581,405
Arabia	32,604	25,581	.....
Austria	.....	.....	6,461
Belgium	4,040	77,623	77,396
Belgian Congo	23,477	21,084	6,239
Bolivia	1,108	1,694	.....
Brazil	.....	63,171	176,516
Burma	.....	1,010	.....
China	30,877	77,816	35,431
Colombia	28,856	3,129	554
Costa Rica	85,389	53,820	24,919
Cuba	462,641	133,082	92,995
Denmark	114	1,015	3,688
Ecuador	48,299	34,069	11,311
Egypt	.....	46,714	31,888
France	306	.....	149,347
Fr. Africa	.....	4,069	1,268
Fr. Guiana	.....	1,864	6,312
Fr. Oceania	22,497	2	.....
Fr. W. Indies	.....	321	43,587
St. Pierre & Miquelon	4,050	4,967	3,550
Germany	10,040	171,525	129,145
Greece	6,017	13,406	4,252
Greenland-Iceland	.....	52,046	36,689
Guam	102	.....	.....
Guatemala	73,653	24,434	15,453
Haiti	60,636	50,462	23,088
Honduras	2,201	2,754	3,926
Indonesia	3,263	2,164	.....
Iran	9,283	793	.....
Israel	690	.....	.....
Italy	16,444	495,062	418,698
Japan	12,807	627	.....
Korea	153	.....	.....
Liberia	2,480	2,510	2,692
Madagascar	3,961	.....	.....
Mexico	2,201	.....	.....
Morocco	101,006	29,411	1,225
Netherlands	1,784	21,761	55,350
Neth. E. Indies	.....	.....	6,647
Neth. Guiana	.....	23,300	22,965
Neth. W. Indies	47,244	32,436	40,984
Nicaragua	21,747	5,707	4,709
Norway	.....	.....	316,684
Palestine (now Israel)	.....	53,695	.....
Panama	49,555	24,907	19,411
Peru	11,792	11	2,163
Poland	236	.....	.....
Portugal	10,321	20,682	16,379
Azores & Madeira	5,241	3,720	10,997
Port. Africa	64,483	31,834	12,824
Port. Asia	9,681	16,018	4,177
Puerto Rico	175	.....	.....
Salvador	32,775	9,793	3,713
Dom. Republic	41,355	39,114	29,069
Siam	32,666	11,247	.....
Spain	.....	507	.....
Spanish Africa	10,672	816	.....
Canary Islands	11,146	2,878	.....
Surinam	40,839	.....	.....
Switzerland	1,156	105,278	58,803
Syria	.....	554,986	72,328
Trans-Jordan	.....	4,637	.....
U. S.	52,744	62,609	187
Alaska	15	586	113
Hawaii	306	2,211	.....
Am. Virgin Islands	3,583	58	1,258
Phil. Islands	1,046,800	643,363	135,265
Venezuela	596,299	384,947	157,053
Yugoslavia	6,400	3,111	.....
Total foreign countries	3,145,980	3,456,447	2,324,709
Grand total	10,063,422	10,797,676	13,906,114

U.S. Exports of Wheat Flour by Months for 1950

Note: By countries of destination, in sacks, 000's omitted. Included are: flour made wholly of U.S. wheat, other wheat flour (not including semolina), and exports under the Department of the Army Civilian Supply Program. Not included are: shipments to the U.S. Armed Forces and U.S. government agencies and shipments between continental U.S. and the U.S. territories and possessions. Source: Bureau of the Census, U. S. Department of Commerce.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Canada	...	3	1	13	20	14	11	...	1	1	...	4	68
Mexico	1	...	1	1	...	2	1	1	2	1	1	1	12
Guatemala	38	31	19	21	32	14	24	9	7	2	40	58	295
Br. Honduras	4	9	...	9	3	5	8	5	8	5	4	4	64
El Salvador	18	20	16	10	6	13	19	17	26	11	11	15	182
Honduras	3	6	8	7	9	6	10	9	6	7	5	6	82
Nicaragua	6	17	19	7	7	9	24	8	18	9	10	11	146
Costa Rica	8	3	6	23	41	28	20	24	29	9	20	24	235
Panama	12	19	16	11	10	17	24	11	16	13	19	20	188
Panama C. Zone	6	2	6	3	6	4	2	6	4	2	2	4	47
Cuba	228	79	247	116	85	180	220	203	201	85	127	360	2,131
Jamaica	50	48	6	90	11	38	57	57	73	32	51	92	605
Haiti	33	26	54	35	21	32	18	18	22	37	50	55	401
Dom. Republic	19	23	25	21	16	28	29	17	30	12	19	25	264
Barbados	4	4	2	...	...	4	4	2	2	6	3	4	35
Trinidad	3	...	5	...	2	1	2	1	1	...	5	2	22
Neth. Antilles	11	8	20	10	12	11	10	10	12	11	12	14	140
Fr. W. Indies	83	28	...	...	...	...	...	...	...	...	...	...	111
Colombia	9	10	22	28	16	6	6	13	12	19	23	10	174
Venezuela	123	127	125	116	88	103	90	57	115	112	117	108	1,281
Surinam	4	3	7	3	1	5	2	5	6	7	2	7	55
Br. Guiana	...	...	...	8	13	13	15	12	...	12	16	...	89
Ecuador	32	35	63	35	17	29	35	42	35	29	44	44	440
Bolivia	4	12	11	10	2	41	9	2	118	85	99	99	492
Peru	...	...	...	1	...	1	...	11	...	...	17	11	41
Chile	2	3	5	5	8	...	15	3	18	7	5	5	76
Brazil	...	...	...	...	...	...	1	28	6	...	2	...	37
Iceland	23	2	14	8	18	9	11	20	2	...	...	...	107
Norway	81	104	141	189	92	101	53	17	131	72	146	67	1,194
Germany	...	2	...	1	...	...	...	...	1	...	...	...	4
Denmark	...	1	...	...	60	5	70	42	...	...	...	...	178
U. K.	...	140	227	403	...	1	...	...	...	...	...	...	831
Ireland	...	...	...	47	1	...	34	...	...	...	...	...	82
Netherlands	...	6	259	191	27	143	241	22	219	182	120	180	1,590
Belgium	...	...	10	2	...	...	...	1	...	...	...	...	13
Yugoslavia	...	2	3	...	2	...	...	3	1	...	...	2	13
Albania	...	32	...	...	...	...	...	...	...	...	...	...	32
Austria	100	174	199	35	71	119	95	46	...	...	...	...	839
Greece	83	196	17	14	149	180	385	64	...	...	...	...	1,088
Turkey	228	...	...	...	...	...	...	...	...	...	...	...	228
Italy	...	...	44	293	133	51	2	212	...	...	...	...	735
Portugal	3	...	...	...	23	1	...	...	2	...	1	2	32
Saudi Arabia	26	16	15	8	2	8	31	28	69	75	21	14	313
Bahrein	6	...	1	1	...	1	...	...	...	3	1	...	13
Indonesia	19	24	107	98	127	145	40	...	11	2	6	36	615
Philippine Rep.	235	118	90	101	53	142	539	102	12	143	...	302	1,837
Port. Asia	25	10	5	33	...	28	...	7	2	5	...	...	115
Hong Kong	10	2	2	3	...	2	4	1	...	13	...	...	37
Taiwan	47	...	...	15	...	...	11	60	...	...	...	...	133
Japan	2	4	6	1	2	3	3	2	3	2	...	57	85
Tangier	6	7	8	3	...	4	5	...	...	...	...	...	33
Gold Coast	35	27	14	19	34	36	34	4	56	53	29	37	378
Angola	10	9	5	15	12	12	21	20	15	8	...	24	151
Belgian Congo	12	12	21	26	12	12	16	16	7	18	11	16	179
Trieste	...	20	32	...	...	...	18	33	...	3	4	3	113
Liberia	1	1	1	2	2	2	1	1	1	1	1	1	16
Madeira	...	...	2	6	...	...	3	1	...	3	4	4	23
Lebanon	...	...	...	52	...	...	2	2	...	...	2	...	58
Oth. B. W. Africa	1	5	2	5	4	7	6	2	12	1	1	6	52
Mozambique	...	...	...	...	31	...	39	1	80	8	...	43	202
Israel (Pal.)	...	...	...	...	...	1	...	...	...	...	112	205	318
Nigeria	11	6	6	23	27	34	42	22	26	17	19	24	259
Oth. P. W. Africa	...	1	1	4	1	...	1	3	2	2	...	1	16
U.S. wheat flour	1,309	1,164	1,472	1,862	960	1,253	1,974	1,023	1,005	805	1,010	1,462	15,299
Other wheat flour	383	279	449	374	349	401	399	285	417	323	359	548	4,566
Totals	1,692	1,443	1,921	2,236	1,309	1,654	2,373	1,308	1,422	1,128	1,369	2,010	19,865

International Trade in Wheat and Flour

Note: By crop years, ending July 31, in bushels, 000,000's omitted. Source: Food Research Institute, Stanford University.

Year—Aug.-July	Net exports of net-exporting countries: Total	United States	Canada	Australia	Argentina	Lower Danube	French N. Africa	India	Others ex-Russia	U.S.S.R.	Net imports of Europe ex-Danube: Total	British Isles	Continent
1949-50*	825	301	225	113	92	..	..	..	..	..	472	172	300
1948-49*	990	504	232	118	63	..	..	..	..	..	620	220	400
1947-48*	940	489	194	109	97	..	..	..	..	..	673	203	470
1946-47*	780	406	239	48	63	..	..	..	..	..	492	192	300
1945-46*	870	398	343	41	70	..	..	..	..	..	..	164	..
1944-45*	625	106	343	55	105	..	..	..	..	..	..	157	..
1943-44*	535	(91)	343	65	98	25	0	..	2	..	231	141	90
1942-43*	370	32	215	38	69	8	3	..	4	..	217	162	55
1941-42*	425	25	226	41	83	20	16	6	5	..	242	182	60
1940-41*	485	31	231	76	96	18	15	0	10	8	336	256	80
1939-40*	620	45	192	86	179	87	17	1	13	..	449	244	205
1938-39	643	103	158	96	122	85	10	(1)	35	34	428	247	181
1937-38	556	117	90	126	72	54	15	19	20	43	404	208	196
1936-37	623	(17)	210	102	162	89	6	19	10	5	443	212	231

Figures in parentheses represent net imports not included in totals. *Approximations, except for U.S. (July-June years), Canada, Australia, Argentina and British Isles.

U.S. Corn Exports to Various Countries

Note: By years, in bushels of 56 lb., 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940
Austria	7,661	6,293	64	2,841	768	...	...	...	...	...	...
Azores & Madeira Islands	...	...	...	80	...	...	...	...	...	...	...
Belgium	4,872	2,852	579	3,878	474	1,967	...	...	...	...	86
Bermuda	...	...	...	...	...	...	...	2	9	2	5
Brazil	...	...	...	...	...	...	...	...	...	...	1
Br. West Africa	80	...	...	...	...	...	...	...	...	...	...
Canada	24,917	16,897	10,431	8,048	2,379	2,140	4,274	2,803	4,849	4,795	14,725
Canary Islands	2,980	778	...	...	...	...	...	...	...	...	...
China	...	...	22	5	...	...	...	...	...	...	...
Colombia	...	...	...	20	...	...	...	...	...	...	...
Costa Rica	...	...	...	...	...	113	...	...	...	...	...
Cuba	3	6	4	46	10	128	...	1	1	3	1
Czechoslovakia	...	...	...	...	320	...	...	...	...	...	...
Denmark	180	9,488	337	...	...	...	...	...	...	...	2,656
Egypt	...	500	384	2,810	...	...	...	...	...	...	...
Finland	...	...	...	732	...	...	...	...	...	...	...
France	12,924	7,168	2,164	13,573	39	734	...	...	...	...	...
Fr. W. Africa	1	39	...	...	...	...	...	...	...	...	...
Germany	5,503	52,987	6,626	10,704	2,799	...	...	...	...	...	...
Greece	180	360	360	2,535	507	543	...	...	...	...	...
Guatemala	9	147	...	...	...	292	...	2	...	...	...
Hungary	...	591	...	...	...	...	...	...	...	...	...
Iceland	...	...	...	8	3	6	7	...	...	...	11
India	...	1,794	...	336	4,003	2	...	...	...	...	...
Ireland	8,367	12,554	377	...	...	...	...	...	...	...	1,777
Italy	4,216	...	2	17,499	1,054	...	...	1	...	...	...
Jamaica	...	...	...	169	80	...	...	20	...	...	49
Japan	414	9,455	660	...	...	...	...	...	...	...	...
Korea	...	...	85	...	...	...	...	...	...	...	...
Mexico	13	12	13	32	378	1,657	5,074	1,172	6	3	...
Mozambique	...	277	...	...	...	...	...	...	...	...	...
Netherlands	6,187	4,291	1,440	5,274	2	698	...	...	...	...	3,090
Norway	3,329	4,355	...	339	...	...	...	...	...	...	422
Palestine, Israel	237	236	...	...	...	...	...	...	...	...	...
Panama	...	...	1	...	...	1	...	1	47	5	1
Philippine Rep.	3	62	13	4	72	88	...	...	...	...	...
Poland & Danzig	...	...	...	1,925	630	...	...	...	...	...	...
Port. Asia	...	...	...	...	332	...	...	...	...	...	...
Portugal	...	160	1	2,335	301	...	...	...	...	339	...
Rumania	...	...	...	4,123	...	...	...	...	...	...	...
South Rhodesia	...	376	...	334	...	...	...	...	...	...	...
Spain	354	...	...	...	...	...	...	...	...	...	...
Sweden	343	...	...	...	...	...	...	...	...	...	...
Switzerland	131	443	24	1,764	20	20	...	24	272	...	...
Trieste	788	354	...	...	...	...	...	...	...	...	...
U. K.	12,357	532	8	6,927	324	7,622	839	1,119	4,852	13,914	15,484
U.S.S.R.	...	...	...	...	9	12	12	6	...	...	...
Venezuela	362	49	3	1,077	2	...	3	...	...	...	1
Yugoslavia	...	...	...	...	874	180	...	...	...	...	...
Other countries	...	2	10	25	22	18	2	2	10	17	7
Totals	95,217	133,058	23,604	87,528	15,202	15,529	10,231	5,133	9,798	19,350	38,317
Lend Lease	...	...	...	...	83	9,304	852	1,124	294	10,552	...
UNRRA	...	...	...	...	3,970	723	...	...	...	...	...

Totals include UNRRA and Lend Lease exports but do not include shipments to U.S. armed forces abroad.

U.S. Exports of Wheat by Months for 1950

Note: By countries of destination, in bushels, 000's omitted. Included are: exports under the Department of the Army Civilian Supply Program. Not included are: shipments to the U.S. Armed Forces and U.S. government agencies and shipments between continental U.S. and the U.S. territories and possessions. Source: Bureau of the Census, U.S. Department of Commerce.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Mexico	1,294	872	1,475	1,316	871	1,433	2,205	1,182	1,565	1,186	1,359	1,542
Honduras	4	5	1	...	1	1	2	...	...	...	6	...
Cuba	3	6	5	7	2	4	10	4	6	5	7	9
Peru	173	...	176	341	850	604	507	...	722	550	700	171
Norway	655	429	405	560	267	553	205	...	93	411	168	...
Netherlands	1,021	2,583	1,865	1,131	1,755	3,326	1,697	1,286	642	866	954	1,179
Germany	4,776	3,977	3,121	336	417	1,773	1,277	4,044	7,228	4,088	3,666	4,714
Austria	2,627	1,434	1,086	1,253	1,245	1,471	113	...	...	554	1,121	530
Spain	490	397	63	...	...	...	...	...	...	...	...	...
Portugal	431	...	650	917	844	729	1,070	722	427	64	...	873
Italy	2,184	845	...	1,932	224	224	1,344	1,848	168	360	...	35
Greece	2,231	443	1,386	1,323	1,674	2,128	1,921	356	...	...	...	1,438
Turkey	640	461	...	...	...	...	...	...	...	...	...	...
Japan	1,526	3,621	3,049	4,185	4,217	1,727	1,457	336	2,482	3,006	2,623	2,702
El Salvador	...	10	...	...	...	...	...	10	...	...	...	...
U. K.	...	3,018	3,874	4,632	1,139	1,488	...	...	...	2,884	57	186
Ireland	...	369	354	698	...	373	351	...	...	...	386	442
Belgium	...	416	915	1,442	928	775	1,029	603	597	738	561	1,300
Trieste	...	336	...	...	...	463	...	...	110	258	...	...
Saudi Arabia	...	6	11	...	...	10	...	43	...	6	6	...
Bolivia	...	...	402	...	...	...	...	...	...	...	...	...
Denmark	...	...	...	606	149	...	206	...	...	...	...	...
Azores	...	...	...	74	...	55	113	66	...	55	...	...
Israel (Pal.)	...	...	...	359	386	366	355	...	345	...	397	371
Madeira	...	...	...	110	47	110	112	129	...	...	123	...
Canada	...	...	...	...	325	...	467	550	108	401	11	8
Gibraltar	...	...	...	...	112	...	...	...	...	...	...	...
Costa Rica	...	...	...	...	...	17	17	...	...	...	...	...
Dom. Repub.	...	...	...	...	...	...	5	...	...	...	...	4
Brazil	...	...	...	...	...	...	327	1,285	1,176	...	1,475	1,306
Venezuela	...	...	...	...	...	...	...	3	...	3	3	3
Taiwan	...	...	...	...	...	...	...	...	129	...	...	90
Switzerland	...	...	...	...	...	...	...	...	...	683	355	1,137
India	...	...	...	...	...	...	...	...	...	372	2,389	722
Ecuador	...	...	...	...	...	...	...	...	...	...	...	7
Egypt	...	...	...	...	...	...	...	...	...	...	...	683
Totals	18,055	19,240	18,838	21,223	15,432	17,725	14,790	12,446	15,799	16,487	16,367	19,456

U.S. Flour, Grain Imports

Note: By calendar years, 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

	Wheat, bu.			
			Milled in bond for export—	
Year—	Wheat flour, sacks	Domestic consumption	To Cuba	To all others
1950	47	8,448	2,191	1,001
1949	79	1,393	1,873	5,718
1948	7	24	...	...
1947	2	22	107	110
1946	10	36	310	6,122
1945	31	4,869	25	11,408
1944	80	110,528	849	9,917
1943	56	49,206	3,160	6,188
1942	91	961	3,321	5,043
1941	10	895	1,813	8,405
1940	147	379	2,457	6,197
1939	172	394	2,598	7,756
1938	143	42	839	2,942
1937	49	8,684	3,281	5,751
1936	980	34,170	4,095	9,216
1935	25	27,439	3,913	7,518
1934	2	7,736	3,446	7,360
1933	2	31	2,733	7,554
1932	..	3	2,592	7,431
1931	..	43	*..	15,648
1930	4	21	*..	19,968

*Included in all others.

	Lb. Rye flour	Bushels Rye	Corn	Barley	Oats	Flaxseed
1950	15	3,789	681	12,842	19,584	2
1949	1	12,190	742	12,688	17,013	148
1948	..	2,039	624	6,859	13,217	1,066
1947	..	818	622	141	730	282
1946	..	992	720	4,411	2,556	3,394
1945	..	3,046	259	17,743	54,161	1,796
1944	..	10,845	9,166	42,289	80,049	10,739
1943	..	2,071	211	44,607	76,784	10,624
1942	..	408	586	6,387	9,527	13,729
1941	..	9,866	786	898	6,021	21,122
1940	..	60	1,621	1,406	12,151	11,825
1939	..	*..	490	776	4,293	16,028
1938	..	..	404	126	7	..
1937	..	207	86,337	10,384	58	..
1936	1	3,889	31,471	8,144	149	..
1935	..	9,643	43,242	4,840	10,107	17,560
1934	5	7,622	2,959	6,580	5,580	14,170
1933	11	8,006	160	*..	132	13,825
1932	..	..	344	*..	59	7,919
1931	..	81	618	*..	876	14,480
1930	..	7	1,556	*..	183	12,622

*Too small to be reported separately.

U.S. Trade in Oilcake, Meal

Note: By calendar years, 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

LINSEED OILCAKE AND OILCAKE MEAL

	Exports tons	Imports lb.
1950	1	7,064
1949	44	18,982
1948	26	18,245
1947	10	42
1946	2	497
1945	741	14,901
1944	1,171	11,279
1943	1,749	2,813
1942	9,852	362
1941	5,711	1,187
1940	88,039	2,256
1939	235,466	9,650
1938	204,239	15,566

COTTONSEED OILCAKE AND OILCAKE MEAL

1950	44	208,603
1949	170	121,175
1948	9	36,798
1947	13	22,043
1946	20	86,513
1945	12	161,313
1944	109	181,996
1943	1,503	129,931
1942	1,121	79,300
1941	648	91,458
1940	1,187	90,438
1939	6,980	9,996
1938	47,237	3,295

SOYBEAN OILCAKE AND OILCAKE MEAL

1950	42	68,916
1949	65	9,622
1948	39	....
1947	122	....
1946	1,753	52
1945	8,183	....
1944	13,693	....
1943	14,908	....
1942	17,273	....
1941	22,904	8,300
1940	38,813	28,038
1939	46,457	25,230
1938	....	26,270

Canadian Wheat Exports

Note: By crop years ending July 31, in bushels, 000's omitted. Source: Dominion Bureau of Statistics.

	1949-50	1948-49	1947-48	1946-47
U. K.	112,663	131,613	123,974	125,551
Ireland (formerly Eire)	3,836	1,367	....	1,244
Aden	....	183	147	....
Br. S. Africa	7,788	6,386	....	1,709
India	675	10,279	....	2,009
Pakistan	....	261	....	....
Br. W. Indies	23	29	22	26
Malta	1,456	2,285	1,763	1,967
Israel (formerly Palestine)	3,508	768	811	....
Arabia	94	549	....	....
Belgium	10,806	3,725	3,545	9,346
Bolivia	718	....	....	....
Brazil	2	....	....	1,062
China	....	560	....	....
Colombia	1,247	47	93	573
Costa Rica	148	....	....	33
Cuba	4	12	....	4
Czechoslovakia	....	....	62	....
Dom. Republic	15	8	5	10
Ecuador	111	118	....	52
Egypt	1,042	2,156	1,745	5,958
France	....	....	4	698
Finland	110	....	....	....
Germany	....	502	....	....
Guatemala	73	....	....	....
Greece	....	....	....	341
Honduras	56	23	....	11
Hungary	....	....	40	....
Iran	4,366	568	192	963
Italy	735	3,828	519	....
Italian Africa, Other	93	....	....	....
Japan	5,076	....	....	....
Mexico	683	700	....	....
Netherlands	....	361	3,189	7,598
Nicaragua	5	....	....	....
Norway	1,153	956	....	1,442
Peru	685	845	....	329
Portugal	329	1,302	....	655
Port. Colonies	....	93	....	....
Salvador	10	21	....	17
Spain	1,550	....	....	....
Switzerland	8,209	4,686	656	1,010
Syria	....	676	....	....
Trans-Jordan	....	38	....	....
Tripoli	187	....	....	....
Turkey	4,113	....	....	....
U. S.	13,265	4,575	128	1,663
Hawaii	1	....	....	....
Venezuela	18	....	....	....
Totals	184,856	179,610	136,895	163,064

U.S. Millfeed Imports

Note: Bran, shorts and other by-product feeds, including feeds ground from bonded wheat, in tons. Source: Bureau of the Census, U.S. Department of Commerce.

	Withdrawn from bond	Direct importations	Total
1950	85,025	212,687	297,712
1949	41,400	148,499	189,899
1948	*....	70,376	70,376
1947	5,459	47,480	52,939
1946	62,955	114,058	177,013
1945	82,570	52,431	135,001
1944	89,433	54,439	143,872
1943	68,366	87,398	155,764
1942	89,757	182,504	272,261
1941	89,048	335,099	424,147
1940	82,678	403,233	485,911
1939	117,662	341,296	458,957
1938	30,568	27,826	58,394

*No milling in bond reported during 1948.

Vancouver Grain, Flour Exports

Note: From Vancouver and other British Columbia ports, by calendar years, 000's omitted. Source: Vancouver Merchants Exchange.

	Flour bbl.				
	U.K.	Orient	Cent. & So. Am.	Others	Total
1950	278	1,326	268	542	75,415
1949	110	1,307	153	152	1,721
1948	441	519	69	156	1,184
1947	1,049	1,082	139	579	2,849
1946	....	1,729	....	101	1,831
	Grain bu.				
1950	29,677	4,151	5,800	13,344	52,972
1949	47,663	1,657	3,093	23,135	75,547
1948	38,581	....	28	2,083	40,693
1947	49,346	....	569	....	49,915
1946	54,425	1,158	923	4,311	60,817
1945	7,968	972	1,986	24,004	34,930
1944	1,994	....	91	14,210	16,295
1943	655	....	86	4,881	5,422

Canadian Flour and Grain Crop Year Exports

Note: By crop years, ending July 31, 000's omitted. Source: Dominion Bureau of Statistics.

	Wheat flour bbl.	Wheat bu.	Oats bu.	Barley bu.	Rye bu.	Flaxseed bu.
1949-50*	10,043	184,857	22,079	17,795	10,882	2,908
1948-49	10,688	179,613	27,868	21,812	10,554	4,595
1947-48	13,660	136,897	7,425	2,896	10,270	1,905
1946-47	17,660	163,072	21,776	6,903	5,269	61
1945-46	13,786	273,996	40,535	5,476	3,038	278
1944-45	13,923	287,342	84,015	39,000	4,000	3,900
1943-44	13,464	283,166	68,688	36,103	8,108	10,050
1942-43	12,875	168,112	69,023	33,761	2,004	5,900
1941-42	10,300	179,902	2,068	2,058	2,792	865
1940-41	10,289	184,906	8,759	2,721	1,957	76
1939-40	6,781	162,158	15,247	12,148	4,571	18
1938-39	4,604	146,240	9,603	16,499	1,758	14
1937-38	3,610	76,713	4,776	14,744	648	16
1936-37	4,526	174,858	5,997	17,555	3,633	178
1935-36	4,979	232,019	11,981	7,676	2,456	19
1934-35	4,750	144,375	14,606	15,057	1,187	12
1933-34	5,455	170,234	6,088	1,711	2,580	197
1932-33	5,371	240,136	11,076	5,391	2,866	794

*Preliminary.

U.S. Rye Exports to Various Countries

Note: By years, in bushels of 56 lb., 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940
Austria	..	3,675	5	..	11	..	..	..	..	..	..
Belgium	..	..	..	..	..	1,746	..	..	..	..	..
Canada	..	1	2	1,385	1	..	..	..	..	..	2
Czechoslovakia	..	..	..	..	..	1,595	..	..	..	..	..
France	..	..	..	361	..	..	..	..	..	..	..
Germany	2,415	4,406	1,078	..	434	..	..	..	..	..	..
Iceland	..	..	8	..	..	..	..	1	1	9	10
Japan	..	18	18	..	..	..	..	..	..	..	..
Mexico	..	..	..	..	..	..	47	66	..	1	1
Netherlands	..	360	..	..	..	..	..	..	..	..	..
Norway	..	..	..	..	1,406	..	..	..	..	..	..
Poland	..	..	..	..	31	135	..	..	..	..	..
Portugal	943	..	..	..	..	..	..	..	..	..	..
Switzerland	..	..	..	..	511	..	..	..	..	..	..
U. K.	..	..	..	..	780	..	..	..	9	..	239
Yugoslavia	..	..	8	..	..	1,528	..	..	..	..	..
All others	..	..	*..	*..	1	9	*..	11	1	3	85
Totals	3,358	8,460	1,110	1,753	3,176	5,004	47	78	11	13	336

Totals include UNRRA and Lend Lease exports but do not include shipments to U.S. armed forces abroad. *Less than 500 bu.

CORN MEAL
Made from Corn that's Vigorously Washed
CORN FLOUR
CORN CONES
Made into Meal, then Gently Roasted
STALEY
4 Bells
corn meal
HOMEMAKERS ALL OVER AMERICA know and appreciate the quality of Staley Corn Meal . . . just as commercial users recognize the quality of Staley Corn Flour and Corn Cones. All Staley corn products are made from grain that has been thoroughly washed and cleaned with the most modern equipment.
Staley Milling Company
KANSAS CITY 16, MO.

U.S. Exports of Feeds to Various Countries

Note: In long tons. Source: Bureau of Census, U.S. Department of Commerce.

MIXED DAIRY AND POULTRY FEEDS

	*1946	*1947	*1948	1949	1950
Iceland	56	5,605	5,339	4,341	2,154
Canada†	4,707	13,228	7,462	1,408	831
Br. Honduras	28	26	20	22	14
Costa Rica	218	245	1,254	377	499
Guatemala	10	76	90	40	110
Honduras	124	306	197	559	68
Pan. C. Zone	865	1,654	1,010	955	637
Pan., Rep. of	850	1,738	1,537	1,693	1,854
Mexico	1,078	1,526	627	302	595
Bermuda	2,810	2,965	1,941	2,851	3,081
Bahamas	2,389	3,126	2,778	1,822	3,264
Jamaica	8	73	23	93	17
Trin. & Tob.	413	1,073	96	710	192
Dom. Rep.	9	124	61	57	12
Barbados	...	1,328	2,256	626	...
Palestine (Israel)	...	224	244	206	339
Cuba	957	5,634	6,639	8,076	9,289
N. Antilles	2,551	2,350	3,840	4,544	4,501
Fr. W. Indies	201	291	151	34	25
Chile	9	10	...	19	...
Colombia	52	...	2	2	48
Greece	5,232	...	...	...	...
Peru	71	136	50	...	...
Yugoslavia	3,083	...	...	...	...
Venezuela	583	4,480	5,075	8,196	3,624
Sweden	34	17	...	...	2
Albania	2,716	65	...	...	...
Phil. Rep.	607	950	2,392	2,286	2,362
Netherl'ds.	...	5,364	162	...	...
Liberia	19	...	21	22	75
Belgium	3,732	6,195	35	80	46
France	54	2,579	...	...	...
Surinam	...	...	...	62	171
Denmark	...	...	...	108	...
Japan	...	...	...	2,399	...
U. K.	...	...	...	32	...
Czecho-slovakia	255	...	...	...	...
Poland	379	...	...	...	...
Oth. countries	79	344	157	131	229
Totals	33,981	61,800	43,476	42,064	34,815

OTHER PREPARED MIXED FEEDS

	*1946	*1947	*1948	1949	1950
Brazil	4	16	24	90	27
Canada†	2,601	4,585	2,251	7,755	4,256
Costa Rica	30	231	295	213	325
Guatemala	...	196	...	2	...
Pan., Rep. of	113	563	386	136	130
Pan. C. Z.	271	309	234	470	356
Mexico	44	76	59	42	174
N. Antilles	1	31	56	171	80
Dom. Rep.	28	...	...	...	...
Fr. W. Ind.	...	...	...	171	...
Chile	...	20	...	...	...
Colombia	4	1	10	...	...
Venezuela	1	179	166	1,106	653
Phil. Rep.	113	96	107	223	714
Honduras	287	1,065	911	700	37
Bermuda	40	403	205	807	221
Bahamas	12	32	106	285	395
Cuba	47	444	357	610	822
Palestine (Israel)	47	328	90	155	...
Hungary	54	...	...	...	...
Netherlands	...	4,190	...	...	2,223
Trinidad	...	669	...	23	...
Denmark	...	2,956	...	497	18,439
France	...	1,001	...	35	151
Belgium	...	35	266	192	316
Japan	...	...	264	546	36
U. K.	...	...	...	4,964	67
Barbados	9	...	...	176	36
Iceland	6	...	...	558	617
India	1	...	...	27	617
Switzerland	...	...	...	19	27
Haiti	...	...	...	38	66
Oth. countries	10	288	113	15	10
Totals	1,795	3,724	17,798	5,865	19,974

Canadian Exports

Note: Wheat and flour in terms of wheat, by crop years ending July 31, in bushels, 000's omitted. Source: Dominion Bureau of Statistics.

	'49-'50	'48-'49	'47-'48	'46-'47	'45-'46
Aug.	24,013	13,829	18,140	17,339	48,074
Sept.	18,294	11,942	15,990	11,338	34,425
Oct.	21,903	21,913	17,204	23,853	36,139
Nov.	27,292	20,792	22,763	23,008	42,817
Dec.	21,002	18,205	20,717	17,488	42,443
Jan.	15,102	18,342	15,961	20,406	20,373
Feb.	11,216	14,214	10,743	13,639	14,959
March	13,607	13,707	15,058	14,085	20,075
April	12,628	20,303	9,965	12,152	20,095
May	23,993	26,683	19,924	28,701	23,003
June	23,870	24,850	15,881	31,594	14,718
July	17,222	23,422	17,129	26,404	18,910
	230,142	228,202	199,475	239,807	336,034

WHEAT FEEDS, BRAN, MIDDLINGS, ETC.

	*1946	*1947	*1948	1949	1950
Canada†	13	256	27	25	816
Pan. C. Zone	54	56	81	...	...
Sweden	...	...	...	27	...
Norway	...	...	...	1,965	...
Pan. Rep.	...	41	50	2	...
Mexico	7	51	3	2	...
Jamaica	...	...	135	333	800
Cuba	92	3,071	2,072	1,799	1,643
Dom. Rep.	...	29	...	6	...
Venezuela	1	1,192	472	441	759
Netherlands	...	63	...	...	...
Phil. Rep.	1	...	13	11	97
Barbados	...	...	...	...	287
Bermuda	...	7	...	...	1
N. Antilles	...	...	56	...	...
Greece	56	530	6	...	...
Poland	53	11	...	...	...
Yugoslavia	23	8	...	...	...
Costa Rica	...	4	27	...	...
Iceland	6	1,016	662	2,630	1,277
Bahamas	10	...	36	...	65
Oth. countries	9	49	21	...	29
Totals	319	6,386	3,643	7,301	5,709

OTHER FEEDS

	*1946	*1947	*1948	1949	1950
Iceland	118	2,112	4,221	837	1,597
U. K.	91	7,523	20	22	...
Canada†	2,140	4,513	3,975	2,383	4,374
Costa Rica	...	...	...	18	...
Belgium	...	6,059	464	964	184
Switzerland	...	3,749	...	160	...
Bolivia	...	161	...	...	...
Brazil	...	303	117	...	...
Pan. C. Zone	...	33	350	94	51
Pan. Rep.	79	60	296	31	45
Mexico	162	201	143	184	36
Bermuda	...	30	27	5	...
Bahamas	36	404	223	268	157
Barbados	...	...	...	...	215
Denmark	...	7,952	...	134	446
India	...	100	...	...	...
Cuba	1,027	506	27	13	157
France	...	5,145	...	282	...
N. Antilles	2	27	62	132	...
Dom. Rep.	5	110	14	16	...
Fr. W. Indies	...	...	49	63	...
Ecuador	...	81	27	258	62
Venezuela	524	421	148	309	131
Poland	285	404	...	...	...
Phil. Rep.	5	297	302	213	663
Italy	36	1,351	1,211	...	...
Czecho-slovakia	311	...	...	...	...
Yugoslavia	151	163	...	...	...
Trinidad & Tobago	20	13	...	...	...
Greece	4,865	37	...	...	...
Saudi Arabia	...	92	189	140	...
Palestine (Israel)	...	...	...	...	1,896
Netherlands	...	...	94	...	...
Germany	...	...	56	...	...
Austria	...	...	278	...	...
Peru	...	...	...	6	...
Chili	...	...	...	116	...
Japan	...	...	...	188	...
Oth. countries	9	73	162	7	82
Totals	9,869	41,921	12,482	6,600	10,126

*Includes Lend Lease and UNRRA shipments. †Includes Newfoundland and Labrador.

U.S. Semolina Exports

Note: By crop years, in pounds, 000's omitted. Source: USDA.

	1946-47	1947-48	1948-49	1949-50
Canada*	1	1	...	...
Mexico	5	...	669	35
Dom. Repub.	350	389	400	776
Colombia	...	260	1,091	4,333
Venezuela	2	10	180	194
Brazil	220	...	600	...
Other L. A. Republics	...	...	160	181
Bahamas	...	...	60	32
Israel & Palestine	...	...	110	...
Netherlands Antilles	...	...	...	40
Norway	1,646	...	...	...
Denmark	498	...	...	...
France	...	3,613	...	...
Portugal	123	...	...	...
Italy	9,932	19,105	...	...
Tangier	22	...	113	...
French West Africa	18,892	1,339	113	...
Belgian Congo	...	...	51	...
Total	31,691	24,723	3,434	5,591

*Includes Newfoundland and Labrador.

U.S. Macaroni Exports

Note: Macaroni and macaroni products, by calendar years, in pounds, 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

	1950	1949	1948	1947
Canada*	12	9	51	1,269
Mexico	112	403	724	955
Guatemala	79	77	52	40
El Salvador	32	39	32	21
Nicaragua	27	37	51	56
Costa Rica	27	8	99	125
Panama Rep.	341	316	318	269
Panama C. Z.	638	782	742	758
Cuba	1,020	918	781	1,488
Haiti	158	127	113	99
Dom. Rep.	757	792	654	495
N. Antilles	...	62	119	67
Colombia	28	6	17	50
Venezuela	137	180	132	90
Brazil	...	...	2,296	2,380
U. K.	...	1	101	107
Netherlands	...	...	288	457
Germany	...	62	4,761	10
Austria	...	10	2,379	51
Belgium & Lux.	21	2,438	2,501	...
Switzerland	...	4,546	8,441	4,424
Portugal	911	698	423	9,845
Italy	...	45	176,649	19,122
Greece	3,116	9,037	19,067	11,896
Syria	4	12	5	526
Saudi Arabia	86	364	437	307
Phil. Rep.	189	989	596	3,258
Hong Kong	62	95	125	175
France	3	69	...	38
Japan	293	77	72	54
Tangier	6	29	118	22
Belg. Congo	213	153	101	140
Un. S. Africa	...	3	262	359
Yugoslavia	15	5	80	...
Others	463	663	563	15,276
Totals	8,825	23,200	223,732	74,634

*Includes Newfoundland and Labrador.

U.S. Wheat and Flour Exports

Note: 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

	Flour 100-lb. sacks	Flour In terms bu. wheat	Wheat bu.	Tot. flour & wheat bu.
1950	19,865	46,682	205,858	252,540
1949	32,218	75,712	340,190	415,902
1948	75,055	176,379	327,503	503,882
1947	76,367	179,462	169,094	348,556
1946	49,661	116,703	187,136	303,839
1945	24,562	57,720	128,764	186,484
1944	16,917	39,755	10,029	49,784
1943	13,107	30,801	11,841	42,642
1942	8,599	20,208	6,615	26,823
1941	11,484	26,987	13,109	40,096
1940	11,317	26,595	14,379	40,974
1939	15,194	35,705	63,214	98,919
1938	10,245	24,004	86,902	110,946
1937	8,751	20,539	34,848	55,387
1936	7,203	16,905	1,879	18,784
1935	6,476	15,198	273	15,431
1934	8,159	19,150	16,970	36,120

U.S. Trade in Soybeans

Note: In pounds, 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

	Exports	Imports
1950	1,146,595	185
1949	1,401,639	375
1948	389,823	96
1947	101,000	...
1946	174,000	...
1945	412,916	268
1944	30,141	...
1943	79,731	...
1942	19,961	9

U.S. Wheat Flour Exports

Note: Flour exports to noncontiguous territories in sacks. These figures are not included in the tables showing total export shipments from the U.S. Source: Bureau of the Census, U.S. Department of Commerce.

	Puerto Rico	Virgin Isids.	Am. Samoa	Guam	Wake
1950	1,120,011	21,686	4,488	13,592	98
1949	1,088,702	32,114	4,057	5,926	54
1948	1,100,330	37,478	3,155	11,342	29
1947	1,144,818	32,799	2,205	1,100	..
1946	1,248,202	36,850	3,191	1,100	..

U.S. Exports by Crop Years

Note: Wheat, flour and grain exports by crop years, ending June 30. Source: U.S. Bureau of Foreign and Domestic Commerce.

	Wheat, bu.	Flour, sacks
1950	264,623,000	21,208,000
1949	375,336,000	57,571,000
1948	304,688,000	78,493,000
1947	175,106,000	83,124,000
1946	226,250,000	40,607,000
1945	19,010,000	16,135,000
1944	11,942,000	16,350,000
1943	6,555,000	11,196,000
1942	12,632,000	9,773,000
1941	10,810,000	12,405,000
1940	23,636,000	12,777,000
1939	84,539,000	13,009,000
1938	83,740,000	9,750,000
1937	3,168,000	7,681,000
1936	311,000	6,513,000
1935	3,019,000	7,720,000
1934	18,799,000	7,591,000
1933	20,887,000	8,481,000
1932	96,521,000	16,380,000
1931	76,365,000	23,044,000
1930	92,176,000	25,468,000

COARSE GRAIN EXPORTS
(In bus, 000's omitted)

Years ending June 30—	Barley	Corn	Oats	Rye
1950	20,813	....	12,376	5,810
1949	23,600	19,810	18,183	5,431
1948	16,725	30,543	11,296	2,247
1947	10,226	105,192	17,757	573
1946	2,967	13,010	18,291	6,165
1945	775	15,297	250	1,747
1944	404	*....	228	110
1943	418	9,997	278	15
1942	1,548	4,805	604	23
1941	838	19,606	159	245
1940	3,844	34,913	204	732
1939	11,215	66,568	4,005	784
1938	17,614	103,269	11,361	6,578
1937	5,153	246	67	248
1936	9,886	372	741	9
1935	4,050	1,937	377	....
1934	5,935	4,405	481	21
1933	9,155	8,193	4,085	311
1932	5,994	3,444	2,479	852
1931	10,390	2,529	907	179
1930	21,548	9,354	4,635	2,538

*Not available.

Uniform Flour Export Trade Terms

Note: Adopted by Flour Millers Export Assn. effective July 1, 1946.

(ALL IN CENTS PER CENTAL)

Country	Maximum Commission	Basic Terms	Optional	Premium	Discount
Bolivia	10c	Cash or irrevocable credit before shipment	Sight draft (D. P.) (not recommended)	2%	
Brazil	10c	Sight Draft (D. P.)	Cash before shipment		1¼%
Colombia	10c	Sight Draft (D. P.)	Cash before shipment		1½%
Costa Rica	10c	Sight Draft (D. P.)	Cash before shipment		1½%
Cuba	10c	Sight Draft (D. P.)	45 days date	1%	
			Cash before shipment or S/D vs. irrevocable credit		1 %
			60-day bank credit		½%
Dom. Republic	10c	Sight Draft (D. P.)	Cash before shipment		1¼%
Ecuador	10c	Sight Draft (D. P.)	Cash before shipment		1½%
El Salvador	10c	Sight Draft (D. P.)	Cash before shipment		1¾%
			45 days date	1%	
Guatemala	10c	Sight Draft (D. P.)	Cash before shipment		1¾%
			45 days date	1%	
Haiti	10c	Sight Draft (D. P.)	Cash before shipment		1¼%
			45 days date	1%	
Honduras	10c	Sight Draft (D. P.)	Cash before shipment		1¼%
			45 days date	1%	
Nicaragua	10c	Sight Draft (D. P.)	Cash before shipment		2 %
Panama	10c	Sight Draft (D. P.)	Cash before shipment		1¼%
			45 days date	1%	
Peru	10c	Sight Draft (D. P.)	Cash before shipment		1¼%
Venezuela	12½c	15 days date or Sight Draft (D. P.) except Ciudad Bolivar and Caripito	Cash before shipment 60 days date	1¼%	1¼%
		25 days date or Sight Draft (D. P.) in Ciudad Bolivar and Caripito	Cash before shipment 60 days date	1½%	1½%

"D. P." means "documents against payment."

"Sight Draft (D. P.)" means in fact arrival draft as most mills instruct bank hold draft for arrival of shipment.

"45 days date" or "60 days date" means from date of ocean B/L. If B/L not dated use approximate clearance date. In some markets "Cash before shipment" terms are not feasible (at present Brazil and Ecuador) but these optional terms are indicated in case situation changes.

"Cash before shipment" means payment in hand by mill or sight draft credit opened before shipment clears from seaboard. If cash or bank credit not received before shipment from seaboard, mill will draw Sight Draft (documents attached) at price applying to Sight Draft terms.

If draw 45 days date draft and buyer pays at sight (on first presentation) discount will be 1%, which is premium included in price. If buyer pays cash before shipment, discount will be as shown for Cash before shipment plus 1%. In Venezuela if draw 60 days date draft and buyer pays at sight (on first presentation) discount will be 1¼%, which is premium included in price. If buyer pays cash before shipment, discount will be as shown for Cash before shipment plus 1¼%.

U.S. Oats Exports to Various Countries

Note: By years, in bushels of 32 lb., 000's omitted. Source: Bureau of the Census, U. S. Department of Commerce.

	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940
Algeria	..	..	502	..	3,875	..	..	..	..	..	..
Austria	..	344	352	..	566	..	..	..	..	..	..
Belgium	..	1,855	..	359	217	2,479	..	..	..	..	..
Brazil	..	8	32	45	2	..	..	..	..	..	..
Br. W. Indies	..	5	1	..	..	..	..	..	..	2	2
Canada*	176	836	358	23	3	2	..	..	5	25	..
Costa Rica	7	14	9	4	6	7	..	..	..	..	..
Cuba	30	259	406	635	315	23	101	43	253	99	1
Czechoslovakia	..	..	..	..	1,111	56	..	..	..	..	..
Denmark	..	..	633	..	..	..	..	..	..	..	..
Dominican Rep.	9	11	15	22	18	21	16	1	2	4	4
Ecuador	3	51	..	8	..	..	..	..	..	..	..
Finland	..	..	..	462	522	..	..	..	..	21	86
France	..	2,931	3,452	..	1,074	176	..	..	..	..	..
Fr. Morocco	..	..	..	..	1,017	..	..	..	..	..	..
Germany	..	5,899	6,379	417	4,096	..	..	..	..	..	..
Greece	842	2,459	1,594	423	1,847	393	..	..	..	..	..
Honduras	..	2	6	13	50	..	12	..	14	31	9
Italy	..	..	..	..	1,794	..	..	..	..	..	..
Mexico	2	225	26	29	138	139	123	24	16	26	35
Netherlands	455	5,104	480	567	1,330	..	..	..	..	..	..
Norway	..	350	..	..	..	..	..	..	..	..	..
Panama, Rep. of	..	9	24	37	25	10	5	19	8	10	4
Philippine Rep.	4	1	2	1	1	..	..	..	..	28	29
Poland	..	..	..	12	265	4	..	..	..	..	..
Portugal	..	..	..	..	1	..	..	..	..	126	..
Rumania	..	..	..	569	..	..	..	..	..	..	..
Sweden	..	..	..	556	574	..	..	..	..	..	..
Switzerland	..	362	..	591	1,646	..	..	..	..	143	..
Tunisia	..	..	..	..	390	..	..	..	..	..	..
U. K.	..	..	..	633	..	..	..	..	..	..	..
Un. of S. Africa	..	..	..	579	3,267	..	..	..	..	..	..
U.S.S.R.	..	..	..	..	..	3	..	11	107	..	..
Venezuela	15	43	70	93	25	2	2	10	..	3	6
Yugoslavia	..	8	..	..	1,283	289	..	..	..	..	..
Other countries	6	15	32	13	30	13	33	10	11	12	10
Totals	1,549	20,769	14,349	6,071	25,507	3,617	292	121	416	530	186
Lend Lease	..	..	..	..	571	1,808	..	2	107	..	..
UNRRA	..	..	..	..	6,024	742	..	..	..	..	..

Totals include UNRRA and Lend Lease exports but do not include shipments to U.S. armed forces abroad. *Includes Newfoundland and Labrador.

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U.S. Semolina Exports to Various Countries

Note: In pounds, 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

	1950	1949	1948	1947	1946	1945	1944	1943	1942
Bahamas	...	93	...	...	...	...	...	...	...
Belgian Congo	...	52	...	...	...	108	...	224	1
Brazil	...	...	600	220	...	...	...	...	...
Colombia	5,063	2,308	732	180	120	420	241	60	80
Costa Rica	...	...	60	...	...	...	...	...	98
Cuba	20	40	...	...	...	...	...	...	39
Denmark	...	...	...	498	...	...	...	...	...
Dominican Rep.	503	594	549	490	50	321	...	...	...
Ecuador	...	40	...	...	...	...	...	...	...
France	...	...	...	3,613	...	...	...	...	...
French W. Africa	...	...	280	19,951	10,218	17,090	54,026	16,418	...
Honduras	10	140	...	...	...	...	...	...	...
Italy	...	...	19,091	9,945	...	...	...	...	...
Mexico	63	255	440	...	3	...	...	...	...
Neth. Antilles	...	40	...	...	...	...	...	...	...
Neth. W. Indies	...	...	...	...	...	...	...	...	15
Norway	...	...	...	1,646	1,109	...	...	...	...
Palestine	...	...	110	...	...	...	...	...	...
Panama, Rep. of	...	...	60	...	...	...	...	...	166
Poland and Danzig	...	...	...	...	312	...	...	...	...
Portugal	...	...	...	123	...	432	...	...	...
Tangier	...	33	80	22	...	66	...	...	...
Venezuela	100	294	20	12	8	111	21	1	5
U.S.S.R.	...	...	...	...	...	2,006	16,998	36,144	2,721
Other countries	27	...	12	44	...	...	137	1	3
Totals	5,788	3,888	22,027	36,706	11,880	21,134	71,523	52,848	3,131
Lend Lease	...	...	...	...	1,540	19,096	71,024	52,562	2,721
UNRRA	...	...	...	...	...	580	...	...	...

Totals include UNRRA and Lend Lease exports but do not include shipments to U.S. armed forces abroad.

U.S. Barley Exports to Various Countries

Note: By years, in bushels of 48 lb., 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940
Algeria	...	...	...	...	68	...	...	...	...	...	...
Australia	...	...	...	...	...	938	...	...	...	...	...
Austria	1,292	997	498	1	266	...	...	...	...	...	...
Belgium	2,916	1,293	...	16	439	80	...	...	...	...	163
Canada	238	2,658	58	384	...	22	...	...	...	...	...
Denmark	...	187	...	...	...	...	...	...	...	...	...
France	...	1,213	...	...	...	...	...	...	...	...	...
Fr. Morocco	...	...	...	...	83	668	...	...	...	...	...
Fr. W. Africa	...	...	...	...	...	...	8	145	...	...	...
Germany	...	3,034	3,770	704	...	...	...	...	...	...	...
Greece	...	789	...	53	194	50	...	...	...	...	...
Iceland	...	3	1	...	5	5	...	...	...	...	...
Japan	8,191	15,869	8,503	...	...	...	...	...	...	...	...
Jugoslavia	280	...	...	...	...	...	...	...	...	...	...
Korea	389	...	167	...	...	...	...	...	...	...	...
Mexico	433	282	206	230	201	567	254	117	313	376	509
Netherlands	138	2,544	411	...	97	187	...	...	...	...	...
New Zealand	...	...	...	...	...	104	...	...	...	...	...
Norway	171	...	...	...	104	...	...	...	...	...	...
Poland	...	...	...	116	...	...	...	...	...	...	...
Portugal	...	...	...	...	2	...	...	...	...	235	...
Spain	...	...	...	...	...	...	...	...	...	133	...
Switzerland	2,043	330	...	14	...	...	...	...	303	461	...
U. K.	...	...	...	...	...	...	...	...	46	...	352
U.S.S.R.	...	...	...	...	...	179	3	143	153	...	...
Other countries	...	4	4	1	24	3	3	2	12	8	12
Totals	16,056	29,203	13,617	1,138	1,407	2,809	306	407	827	1,218	1,403
Lend Lease	...	...	...	...	...	1,009	11	285	153	...	...
UNRRA	...	...	...	...	401	50	...	...	...	...	...

Totals include UNRRA and Lend Lease exports but do not include shipments to U.S. armed forces abroad.

U.S. Grain Exports

Note: By calendar years, in bushels, 000's omitted. Source: Bureau of the Census, U.S. Department of Commerce.

	Corn	Oats	Rye	Barley
1950	95,217	1,549	3,358	16,056
1949	133,058	20,769	8,460	29,203
1948	23,604	14,349	1,110	13,617
1947	87,528	6,071	1,753	1,138
1946	15,202	25,507	3,176	1,407
1945	15,529	3,617	5,004	2,809
1944	10,231	282	47	306
1943	5,133	121	78	407
1942	9,798	416	11	827
1941	19,350	530	13	1,218
1940	38,317	186	890	1,403
1939	32,117	226	84	5,410
1938	147,505	8,517	3,347	16,130
1937	5,834	9,728	4,262	11,473
1936	524	517	6	7,377
1935	177	563	5	7,507
1934	2,987	141	6	5,447
1933	5,365	1,476	40	7,142
1932	7,886	3,486	1,096	7,043
1931	2,700	2,121	121	7,851
1930	6,369	1,501	266	9,874
1929	33,745	6,609	3,434	29,523
1928	25,799	10,421	14,499	51,676
1927	13,428	10,053	35,941	37,973
1926	23,064	11,395	11,941	13,569

U.S. Wheat, Flour Imports

Note: By crop years ending June 30. Source: U.S. Department of Commerce.

	Flour, sacks	Wheat, bu.
1949-50	51,013	11,810,000
1948-49	74,561	4,397,000
1947-48	2,680	143,000
1946-47	3,000	2,018,000
1945-46	33,000	13,494,000
1944-45	83,000	51,367,000
1943-44	41,707	151,365
1942-43	41,803	8,533,000
1941-42	74,786	15,396,000
1940-41	132,000	10,732,000
1939-40	139,000	10,094,000
1938-39	183,000	9,235,000
1937-38	59,000	3,421,000
1936-37	80,000	47,731,000
1935-36	69,000	46,472,000
1934-35	8,000	*25,116,000
1933-34	1,617	†11,490,437
1932-33	1,239	9,379,000
1931-32	531	12,884,908
1930-31	3,338	19,953,000
1929-30	3,339	12,948,000
1928-29	5,101	21,429,774
1927-28	11,229	15,706,784

*Including 14,052,000 bu. for domestic consumption, of which 8,146,000 was for feed. †Including 149,000 bu. for domestic consumption, of which 6,000 was for feed.

U.S. Wheat and Flour Exports

Note: Wheat and wheat flour (semolina not included), by crop years, 000's omitted. Source: USDA.

	Wheat, bu. '48-'49	Wheat, bu. '49-'50	Flour, sacks '48-'49	Flour, sacks '49-'50
Canada, incl. Newfoundl'd & Labrador	441	6,559	35	72
L. Am. Rep.—				
Mexico	3,708	11,796	24	16
Guatemala	...	...	394	321
El Salvador	47	33	156	167
Honduras	172	90	87	84
Costa Rica	60	60	286	240
Nicaragua	...	...	113	119
Pan., Rep. of	...	...	204	166
Pan. Canal Zone	...	...	77	62
Cuba	70	56	2,713	2,146
Haiti	...	...	476	418
Dom. Rep.	15	...	183	213
Colombia	473	41	227	121
Venezuela	...	...	1,353	1,268
Ecuador	52	...	410	434
Peru	3,881	4,321	113	5
Bolivia	750	402	383	168
Chili	...	...	94	53
Brazil	...	...	7,556	45
Oth. L. A. Rep.	152	5	7	...
Total L. Am. Republics	14,380	16,777	14,846	6,046
Br. Honduras	...	...	48	62
Br. W. Indies	...	...	584	530
Neth. Antilles	...	...	135	133
F. W. Indies	...	...	716	373
Surinam	...	...	16	32
Europe—				
Iceland	5	3	100	121
Sweden	...	...	53	...
Norway	6,391	3,947	1,097	1,171
Denmark	...	754	...	66
U. K.	7,461	14,152	914	1,296
Eire	3,222	2,728	216	48
Netherlands	17,373	17,831	2,904	977
Belgium & Lux.	15,776	10,035	...	13
France	10,416	224	406	192
Germany	115,616	77,407	5,565	422
Austria	16,289	17,074	1,701	1,442
Czechoslovakia	3	...	...	...
Hungary	...	...	...	...
Switzerland	9,096	...	19	2
Finland	...	...	...	...
Poland & Danzig	...	...	...	2
Spain	...	2,609	...	...
Azores	90	228	...	...
Portugal	10,564	6,721	448	32
Italy	50,314	6,865	7,006	781
Trieste	1,402	799	199	120
Greece	15,943	14,778	3,681	1,428
Rumania	...	...	...	...
Yugoslavia	...	...	47	23
Albania	...	...	...	33
Gibraltar	...	112	...	...
Total Europe	279,981	175,367	24,376	8,175
Turkey	...	4,768	...	334
Iran	...	732	...	...
Syria	...	...	156	...
Lebanon	...	...	171	52
Saudi Arabia	449	93	88	118
Israel and Palestine	747	1,091	32	165
India	21,087	925	827	2
Pakistan	674	...	...	...
Siam	...	...	6	2
Br. Malaya	...	...	...	...
Indonesia	...	...	1,811	1,049
Rep. of Phil.	2	...	3,254	1,875
China	972	...	1,415	...
Korea	4,130	...	820	...
Hong Kong	...	...	116	316
Japan	44,091	57,886	6,446	251
Fr. Morocco	317	...	...	...
Tangier	...	...	44	33
Algeria	355	...	...	...
Egypt	4,090	...	13	...
Fr. W. Africa	...	...	211	127
Nigeria	...	...	34	187
Madeira Islds.	582	422	16	11
Gold Coast	...	...	292	331
Other Br. West Africa	...	...	7	47
Angola	...	...	79	115
Liberia	...	...	13	11
Belgian Congo	...	...	143	140
Mozambique	...	...	135	35
Un. of S. Africa	3,024	...	1	3
Others	34	3	685	581
Total	375,336	264,623	57,571	21,208

Canadian Flour to Philippines

Note: In barrels. Source: Dominion Bureau of Statistics.

1949-50	1,046,800	1944-45	44,689
1948-49	843,363	1943-44	.....
1947-48	135,265	1942-43	.....
1946-47	858,339	1941-42	45,649
1945-46	411,619	1940-41	146,802

U.S. Wheat & Rye Consumption

Note: Total and per capita consumption of wheat and rye by calendar years. Source: USDA.

Year	Wheat—Total consumed for food, Total, mil. bu.	Wheat—Per capita consumption of products, Per capita*, lb.	Wheat flour†, lb.	Cereal, lb.	Rye—Total rye consumed, Total, mil. bu.	Rye—Per capita*, lb.	Per capita consumption of rye flour, lb.
1950‡..	488	193	135	3.3	4.9	1.8	1.4
1949..	477	183	135	3.3	4.7	1.8	1.4
1948..	475	195	137	3.3	4.6	1.8	1.4
1947..	472	198	138	3.3	4.4	1.7	1.3
1946..	495	213	156	3.3	5.7	2.3	1.8
1945..	491	227	159	3.7	7.5	3.2	2.5
1944..	455	211	148	3.7	7.9	3.4	2.6
1943..	499	231	162	3.8	9.3	3.9	3.1
1942..	489	222	156	3.8	7.8	3.3	2.5
1941..	487	220	155	3.8	6.9	2.9	2.2
1940..	486	220	144	3.8	7.3	3.1	2.4
1939..	492	224	157	3.9	6.9	2.9	2.2
1938..	493	226	159	3.7	6.3	2.7	2.1
1937..	485	225	158	3.6	6.4	2.8	2.1
1936..	496	231	162	3.5	7.0	3.0	2.3
1935..	476	223	157	3.6	7.6	3.3	2.5
1934..	479	226	157	3.5	7.4	3.3	2.5
1933..	476	226	158	3.5	7.7	3.4	2.6
1932..	486	232	161	3.5	8.9	4.0	3.0
1931..	500	240	167	3.5	10.1	4.5	3.5
1930..	508	246	172	3.5	9.4	4.2	3.2
1929..	508	249	174	3.5	9.8	4.5	3.4
1928..	519	257	179	3.5	9.9	4.5	3.4
1927..	503	252	176	3.6	9.8	4.6	3.5
1926..	503	255	178	3.6	10.0	4.7	3.6
1925..	490	252	176	3.6	9.8	4.7	3.6
1924..	488	255	177	3.6	9.5	4.6	3.5

Consumption data for most grain products are measured at the processing level. Civilian consumption only beginning 1941. *Grain equivalent. †Includes white, whole wheat and semolina flour. ‡Preliminary.

U.S. Per Capita Grain Products Consumption

Note: Apparent civilian consumption per capita basis, by calendar years, in pounds. **Source: USDA**

Commodity—	Average 1935-39	1944	1945	1946	1947	1948	1949	1950 prel.	Forecast for 1951
Grains—Corn products:									
Corn meal	22.9	20.4	19.9	15.9	14.6	14.5	13.5	13.5	13.5
Corn sirup	7.6	13.5	13.7	11.8	12.8	8.2	8.5	9.1	9.5
Corn sugar	2.7	3.9	3.8	3.8	4.5	4.0	4.1	4.5	5.0
Breakfast cereals.	1.6	2.5	2.5	1.9	1.7	1.5	1.5	1.5	1.5
Hominy	1.4	1.8	1.7	2.7	2.4	2.4	2.7	2.7	2.7
Oatmeal	3.9	3.2	4.1	3.1	3.5	3.2	2.9	3.0	3.0
Barley food products*	1.4	1.4	1.5	2.0	1.9	1.5	1.5	1.6	1.6
Wheat—									
Flour†	153.0	162.2	159.0	156.0	136.0	136.0	135.0	135.0	135.0
Breakfast cereals.	3.7	3.7	3.5	3.3	3.3	3.3	3.3	3.3	3.3
Rye flour	2.2	2.6	2.6	1.8	1.3	1.4	1.4	1.4	1.4
Rice, milled	5.6	4.9	4.7	4.0	5.8	4.8	5.0	5.0	5.0

Data for 1950 preliminary, 1951 forecasts. *All barley food products in terms of malt equivalent. †Includes white, whole wheat and semolina flour.

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For Additional Facts:

Baking Section - Page 111
- State Bread Laws
- Industrial Flims
- Bread Standards

Foreign Section - Page 42
- Bleaching Regulations
- Packaging Regulations
- Self-Rising Flour Regulations

Grain Section - Page 56
- Contract Grades of Grain
- Corn and Wheat Standards
- Elevators and Capacities
- Grain Movement

Feed Section - Page 91

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Millers National Federation

Organization of the Millers National Federation was perfected March 25, 1902, at a meeting in Chicago attended by millers representing 23 state and sectional associations. The new organization supplanted an older one, the Millers National Assn., formed in 1874.

The organization meeting had been preceded by a preliminary conference held in Chicago Feb. 12, 1902.

Mr. Eckhart was made permanent chairman, succeeding the temporary chairman, Hosea B. Sparks. C. V. Topping served as secretary.

A committee comprising Messrs. Eckhart, Ellis, Carter, Miner, Evans, Mennel and Rowe devised a plan for permanent organization, and this was adopted at the meeting on March 25, when 23 state and sectional associations were present.

The officers chosen at this meeting or subsequently appointed were as follows: Bernard A. Eckhart, Chicago, president; H. L. Little, Minneapolis, first vice president; E. C. Stanard, St. Louis, second vice president; William C. Ellis, St. Louis, treasurer; H. S. Kennedy, Chicago, secretary; Herbert Bradley, New York City, traffic manager. To serve with Mr. Eckhart on the board of directors, the following were named: H. L. Little, Minneapolis; E. C. Stanard, St. Louis; William C. Ellis, St. Louis; Edgar H. Evans, Indianapolis; Charles C. Bovey, Minneapolis; William N. Anderson, Milwaukee; Herbert Hackney, Topeka, Kansas; J. N. Rayzor, Denton, Texas; William N. Rowe, Grand Rapids, Mich.; C. L. Cutter, Toledo; Asher Miner, Wilkesbarre, Pa.; M. H. Davis, Shelby, Ohio; C. T. Ballard, Louisville, Ky.; C. E. Angle, Rochester, N.Y.; E. P. Bronson, Nashville, Tenn., and Seymour Carter, Hastings, Minn.

Mr. Kennedy set up an office at 612 Royal Insurance Bldg., in Chicago. Twenty-six millers' organizations were enrolled as members, representing about a thousand individual millers.

Thus was born the Millers National Federation, which adopted the motto, "Not for Self But for All."

Purposes of the federation, as set forth in the articles of incorporation, are as follows:

(1) To promote the welfare of the wheat flour milling industry of the U.S.

(2) To provide a means of contact with appropriate federal and state agencies.

(3) To promote good relations with the general public and an understanding by the public of the economic functions performed by the milling industry.

(4) To perform a general trade service of education among the millers of the U.S. by the dissemination of statistical and economic information.

(5) To conduct educational and promotional activities among consumers for the purpose of obtaining increased acceptance of mill products.

(6) To improve the methods and practices of the industry in the manufacture and distribution of its products.

(7) To establish appropriate relationships with other agencies and associations.

(8) To inculcate and promote a spirit of public service and responsibility among the members of the industry.

From 1902 until 1924, the federation membership continued to consist of state and sectional associations. In 1924 the setup

was changed to a direct membership organization of individual companies, the system which has prevailed up to the present time.

Leadership of the federation has been in distinguished hands. The list of top executives (presidents, except as otherwise noted) contains these names together with the years of service in office:

Bernard A. Eckhart, B. A. Eckhart Milling Co., Chicago, Ill., 1902-04; Charles Espenschied, Gardner Mills, Hastings, Minn., 1904-06; John W. Burk, Ansted & Burk Co., Springfield, Ohio, 1906-08; William E. Castle, Ballard & Ballard Co., Inc., Louisville, Ky., 1908-10; Dwight M. Baldwin, Jr., Baldwin Flour Mills Co., Minneapolis, Minn., 1910-11; Hosea B. Sparks, Sparks Milling Co., Alton, Ill., 1911-12; Andrew J. Hunt, New Era Milling Co., Arkansas City, Kansas, 1912-14; Mark N. Mennel, Mennel Milling Co., Toledo, Ohio, 1914-16; Samuel Plant, George P. Plant Milling Co., St. Louis, Mo., 1916-18; Fred J. Lingham, Federal Mill, Inc., Lockport, N.Y.; April-July, 1918 (resigned to become chief of the Flour Milling Division of the U.S. Food Administration 1917-18); E. M. Kelly, Liberty Mills, Nashville, Tenn., 1918-20; A. L. Goetzmann, Listman Mills Co., Minneapolis, Minn., 1920-22; Charles L. Roos, Hunter Milling Co., Wellington, Kansas, 1922-24.

In 1924, the executive setup was changed, Sydney Anderson, General Mills, Inc., Minneapolis, becoming president on a full-time basis, and the following successively holding the office of chairman of the board of directors: Tipton S. Elliott, Elliott Milling Co., Seymour, Ind., 1924-25; Benjamin W. Marr, Gwinn Milling Co., Columbus, Ohio, 1925-27; Henry L. Beecher, Eagle Roller Mill Co., New Ulm, Minn., 1927-29; Carl B. Warkentin, Midland Flour Milling Co., Kansas City, Mo., 1929-31; Edgar H. Evans, Acme-Evans Co., Indianapolis, Ind., 1931-32; Frank Hutchinson, Lawrenceburg Roller Mills Co., Lawrenceburg, Ind., 1932-33.

In 1932, the office of president was reestablished to supplant the chairmanship of the board, and Fred J. Lingham, Federal Mill, Inc., Lockport, N.Y., became the incumbent. He was succeeded by Jess B. Smith, Associated Millers of Kansas Wheat (Shellabarger Mills), Salina, Kansas, in 1934. With the inauguration of a campaign to increase flour consumption, sponsored by the federation, and the creation of the Wheat Flour Institute, Mr. Smith served as full-time president from 1934 to 1937, with Frank J. Allen, Bay State Milling Co., Winona, Minn., as chairman of the board.

The title of president was added to that of chairman of the board in 1937, when O. D. Fisher, Fisher Flouring Mills Co., Seattle, Wash., was elected to the office. He was succeeded in 1938 by Fred Borries, Ballard & Ballard Co., Inc., Louisville, Ky. R. Ward Magill, Kansas Milling Co., Wichita, Kansas, was chosen in 1940 to succeed Mr. Borries. Mr. Magill was re-elected in 1941; Willis C. Helm, Russell-Miller Milling Co., Minneapolis, Minn., was president in 1942 and 1943; Carlton D. McKenzie, McKenzie Milling Co., Quincy, Mich., in 1944-46; W. P. Bomar, Bewley Mills, Inc., Fort Worth, Texas, in 1946-48; John L. Locke, Fisher Flouring Mills Co., Seattle, Wash., in 1948-50; Howard W. Files, Pillsbury Mills, Inc., Minneapolis, Minn., in 1950-51.

In 1929, when Mr. Anderson resigned the presidency, George Livingston was named executive vice president, in which capacity he continued to serve until his resignation in 1939.

The first annual convention of the federation was held June 3-5, 1903, in Detroit, Mich., with an attendance of about 400.

To facilitate the federation's educational and promotional work, the Wheat Flour Institute was formed in 1935. Its activities include work with elementary teachers, doctors, public health groups, nutritionists, home economists, the press, radio and various other groups and individuals concerned with the use of flour and baked products and with their food value.

Wheat Flour Subsidy Program

Subsidized exports of wheat flour continued in 1950-51 under the Commodity Credit Corp. program set up as a corollary to the International Wheat Agreement. Daily rates of payment were announced in terms of cents per bushel of wheat, and flour payments were computed from these on the basis of standard wheat-to-flour conversion figures. Thus, 2.33 times the bushel rate was paid on 72% extraction flour and clears, 1.67 times the wheat rate on whole wheat flour and 2.17 times the wheat rate on 80% extraction flour.

The daily payments fluctuated generally with the wheat market since the subsidy program was designed to make up the difference between the high, price-supported domestic wheat market and the lower maximum price allowed under the IWA. Starting in February, 1950, multiple rates were announced daily for each port area to provide different rates for nearby and distant delivery contracts (old crop and new crop). For example, on April 6, 1950, the East Coast rate varied from 40¢ bu. for June-July shipment to 60¢ for April shipment.

Starting at the end of July and continuing into the new crop year, single daily payment rates were announced for each port area. Thus, on Aug. 1, 1950, the rate for Gulf shipment to Europe was 60¢ bu. for any shipment period through July 31, 1951. The top daily payment rate of 76¢ bu. was reached in January, 1951, when the wheat market climbed sharply.

Milling in Transit

Milling in transit is the practice of shipping a carload of a commodity from point A to point B, there unloading it and subjecting it to some process, after which reshipment is made to point C beyond at a through freight rate less than the combination of rates to and from point B—as would be applicable in the absence of the transit-stop provision.

The point at which the commodity originates in the first instance is known as the "point of origin." The point at which the stop is made for processing is the "transit point." The point to which reshipment is later made from the transit point is the "final destination."

When the commodity moves from its point of origin to the transit point the local freight rate thereto is paid; and when reshipment is ultimately made beyond, from B to C, the rate paid is the difference between the rate already paid from A to B and the through rate from A to C. This difference is less than the flat local rate from B to C, and is known as the "transit balance rate."

For example, if the inbound freight rate on wheat from its origin to the milling point is 25¢ a 100 lb., and the freight rate on flour from the milling point to final destination is 50¢ this combination of rates, totaling 75¢, would be paid by the miller at the milling point in the absence of the transit arrangement.

But the through rate on flour from the point of origin of the wheat to the final destination of the flour is only 60¢. So the transit permits using this through rate in lieu of the combination of rates totaling 75¢.

The processor at the milling point pays the 25¢ on arrival of the wheat from its origin point. After the wheat is ground and the flour is shipped to the final destination he simply pays the difference between the inbound rate of 25¢ and the through rate of 60¢, or the transit-balance rate of 35¢.

This transit practice seems to have started in 1870 at Nashville, Tenn., where a practice of rebilling or reshipping grain under its provisions was inaugurated. From that beginning it has grown to a point where it has long been a universal practice in the railroad transportation of grain and its products. The same principle is applied to many other commodities.

The theory of it is to give to the shipper or processor the right to stop a shipment at an intermediate point for storage or to change the form or substance of the commodity shipped, and then reship to final destination at a total freight charge not exceeding that applicable had the shipment not been stopped.

The further theory is that the movements to and from the transit or processing point are in fact parts of a single continuous transaction. While the freight is stopped at the transit point, the continuous movement is merely suspended temporarily, the intention of the shipper being to forward the goods to their ultimate destination.

The universal application of transit in connection with freight rates on grain and grain products has resulted from the policy of equalising transportation costs of various processors — whether located in the wheat fields where the grain is produced, at the final destinations where the grain or its products are consumed, or at points intermediate between the grain fields and points of consumption, in the reasonably normal flow of the traffic.

It has made competitive many hundreds of processing points that would otherwise be non-competitive—and has thus benefited the producers of grain and the buyers of grain and its products, as well as the processors.

Uniform Export Package Differentials

Note: Effective Feb. 1, 1951. **Source: Flour Millers' Export Assn.**

(All Differentials per 100 lb.)

		Basis
100-lb. single osna.	36x42" 2.35 yd. osna.	basis
100-lb. single osna.	40x41" 2.11 yd. osna.	.03 over
100-lb. single jute	40x41" 10½ oz. common	.04 under
100-lb. double osna.	40x41" inside 40x41" 2.11 yd. osna.	.55 over
100-lb. jute over osna.	40x41" 2.11 yd. osna. inside 40x42" 10 oz. jute	.48 over
100-lb. jute over cot.	40x42" 2.50 yd. brown inside 40x43" 10 oz. jute	.46 over
100-lb. jute over cot.	36x43" 4.00 yd. brown inside 36x44" 10 oz. jute	.31 over
100-lb. osna. over cot.	40x42" 2.50 yd. brown inside 40x42" 2.11 yd. osna.	.53 over
100-lb. osna. over cot.	36x43" 4.00 yd. brown inside 36x42" 2.35 yd. osna.	.38 over
100-lb. single drill	30x51" 2.50 yd. drill	.08 over
200-lb. single osna.	30x80" 2.35 yd. osna.	.03 under
200-lb. osna. over cot.	40x59" 2.85 yd. brown inside 30x80" 2.35 yd. osna.	.29 over
140-lb. single osna.	40x48" 2.11 yd. osna.	.06 under
140-lb. single jute	40x49" 10½ oz. common	.11 under
125-lb. jute over osna.	40x45" 2.11 yd. osna. inside 40x46" 10½ oz. jute	.36 over
125-lb. jute over jute	40x46" inside 40x46" 10½ oz. common	.32 over
50 kilos single jute	26x46" 10 oz. common	.09 under
50 kilos single osna.	36x45" 2.35 yd. osna.	.02 under
100-lb. single cot.	36x43" 4.00 yd. brown	.12 under
50-lb. single cot.	31x33" 5.00 yd brown	.04 over
50-lb. single osna. (square)	30x34" 2.35 yd. osna.	.35 over
50-lb. single osna. (long)	36x28" 2.35 yd. osna.	.22 over
Jute bale 20 5-lb. cot.	15x16" 5.00 yd. brown inside 40x51" 10 oz. jute	1.90 over
Osna. bale 20 5-lb. cotton	15x16" 5.00 yd. brown inside 40x50" 2.11 yd. osna.	2.00 over
Jute bale 10 10-lb. cot.	18x21" 4.00 yd. brown inside 40x51" 10 oz. jute	1.35 over
Osna. bale 10 10-lb. cot.	18x21" 4.00 yd. brown inside 40x50" 2.11 yd. osna.	1.45 over
Jute bale 4 25-lb. cot.	26x27" 6.90 yd. brown inside 40x53" 10 oz. jute	.85 over
Osna. bale 4 25-lb. cot.	26x27" 6.90 yd. brown inside 40x52" 2.11 yd. osna.	.95 over
Jute bale 6 25-lb. cot.	26x27" 6.90 yd. brown inside 40x59" 10 oz. jute	.70 over
Osna. bale 6 25-lb. cot.	26x27" 6.90 yd brown inside 40x58" 2.11 yd. osna.	.80 over
Jute bale 8 25-lb. cot.	26x27" 6.90 yd. brown inside 40x68" 10 oz. jute	.65 over
Jute bale 8 25-lb. cot.	26x27" 6.90 yd. brown inside 45x62" 10 oz. jute	.65 over
Osna. bale 8 25-lb. cot.	26x27" 6.90 yd. brown inside 40x67" 2.11 yd. osna.	.75 over
Osna. bale 8 25-lb. cot.	26x27" 6.90 yd. brown inside 30x90" 2.35 yd. osna.	.85 over
Jute bale 2 50-lb. cot.	31x33" 5.00 yd. brown inside 36x56" 10 oz. jute	.65 over
Osna. bale 2 50-lb. cot.	31x33" 5.00 yd. brown inside 36x55" 2.35 yd. osna.	.75 over
Jute bale 3 50-lb. cot.	31x33" 5.00 yd. brown inside 40x60" 10 oz. jute	.55 over
Osna. bale 3 50-lb. cot.	31x33" 5.00 yd. brown inside 40x59" 2.11 yd. osna.	.65 over
Jute bale 4 50-lb. cot.	31x33" 5.00 yd. brown inside 40x64" 10 oz. jute	.45 over
Jute bale 4 50-lb. cot.	31x33" 5.00 yd. brown inside 45x62" 10 oz. jute	.45 over
Osna. bale 4 50-lb. cot.	31x33" 5.00 yd. brown inside 40x67" 2.11 yd. osna.	.55 over
Osna. bale 4 50-lb. cot.	31x33" 5.00 yd. brown inside 30x99" 2.35 yd. osna.	.65 over

Jute: Prices are for lots of 1,000 printed on one side in one color black. Cotton and osnaburg: Prices are for lots of 1,000 printed on one side.

When secondhand osnaburgs are used, the differential will be 5¢ under new osnaburgs. When secondhand jutes are used, the differentials will be 5¢ under new jutes.

In computing above differentials the following labor costs were included: 1¢ for packing double bags; 3¢ cwt. for packing 50-lb. single bags; 1¢ bag plus 8¢ for outside container for packing bales.

Basis: Bemis Bro. Bag Co., l.c.l. Burlap Price List FF of Dec. 8, 1950; Bemis Bro. Bag Co., Cotton Bag Price List No. 60 of Dec. 21, 1950, for Minnesota, Wisconsin and Iowa.

INFORMATION ON FOREIGN COUNTRIES

Flour Package Laws of Foreign Countries

The Office of International Trade, U.S. Department of Commerce, has supplied the following information on flour package laws in foreign countries:

British West Africa (Gold Coast, Nigeria, Sierra Leone and Gambia)—There are no specific regulations governing the packaging of imported flour or cereals in British West Africa, except Sierra Leone and Gambia which require flour packages to be "clearly and legibly" marked as to their contents and net weight. No other packaging regulations are known to exist although according to the latest issue of the official Gold Coast Handbook (1937), flour is usually imported into that Colony and Protectorate in bags varying from 14 to 98 lb. A certain amount of flour in small tins of 3, 4 or 7 lb. weight each is imported largely for the European trade. Packaging customs are likely to be more or less uniform through the four territories comprising British West Africa, consequently it is believed the above data on the Gold Coast applies equally to Nigeria, Sierra Leone and Gambia. Good packing is essential to protect contents against tropical climatic conditions, pilferage and very rough handling. Outside packing should be strong and all goods which may be affected by water should be protected by tin-lined cases or water-proof packing.

Canada—Imports very little flour. It is all border trade, and no standard package is used.

Costa Rica—There are no regulations regarding size or kind of bag or other container in the packaging of flour except that the importation of products packed in used bags is prohibited.

Cuba—There are no regulations governing the packaging of flour. However, wheat flour is customarily imported into Cuba in 200-lb. bags.

Ecuador—Most popular type of container used is the 100-lb. jute bag with cotton liner. Also popular is the 50-lb. bag with cotton liner. There is no special requirement regarding size of bag or fabric. All flour shipped to Ecuador must be accompanied by a certificate of analysis by the competent authority of the place of origin, which has been authenticated by the Ecuadoran Consul at the port of embarkation, without prejudice to the right of the customs authorities to verify, when they see fit, the correctness of the analysis. According to regulations every container shipped to Ecuador must show its gross weight. It must be shown in indelible and easily legible numbers at least six centimeters long. Wheat flour shipped under tariff No. 87 must in addition show the net weight in the same type of print. If this is not done a 50% surcharge is assessed.

Egypt—Misbranded products imported for sale are prohibited. An indication of the country of origin or place of manufacture must be shown. Blended flour (farine milangie) must be labeled "farine milangie" written in Arabic characters at least 3 cm. in height on the container or on a label glued on or hermetically attached to the package.

French West Indies—Sale of wheat flour is under government control and all purchases abroad are made in bulk. No retail sales are allowed, flour being distributed to bakeries only. ECA authorities state that wheat flour shipped to the French West Indies is put up in either 100-lb. net new 10½ oz. jute bags or in 100-lb. new 36 in., 2.35 yd. osnaburg bags.

Gibraltar and Malta—There are no official regulations governing the packaging of imported flour or cereal products. No information is available on the customary weights of imported packages. The usual export packing is required for shipment.

Guatemala—Packaging requirements in the Sanitary Code do not specify size or kind of bags or other containers in which flour may be imported. The code states "In the manufacture, packing and preservation of foods, beverages and similar products, the use of receptacles is prohibited which have been painted, varnished, tinned or glazed with poisonous or injurious substances which may alter the foods, beverages and similar products." Customary export packing is suggested for goods shipped by way of the Atlantic port of Puerto Barrios, which has excellent wharf facilities. However, for goods shipped by way of San Jose or Champerico, packing should be strong enough to withstand rough handling because goods are lightered from ships in an open roadstead. Customs duties with a few exceptions are based on weight, and to avoid payment of excess customs duties, it is important that care should be taken in following packing instructions given the exporter by the importer.

Hong Kong—Bags most frequently used are 49-lb. cloth bags. Since relative humidity frequently reaches 98%, cereals should be packed so as to afford maximum protection against moisture.

Indonesia—The 49-lb. sack is customary; larger sacks are not generally acceptable; cotton sacks preferred. Weight of cotton sacks is regulated; 50 and 68 kilo sacks also used.

Iraq—There are no specific requirements for indicating country of origin on imported goods but this is highly desirable and there are no special labeling or marking requirements. Normally the marks should show the initials of the importer and the city to which it is destined. Packing should be particularly strong because of the rough handling of merchandise at the Port of Basra.

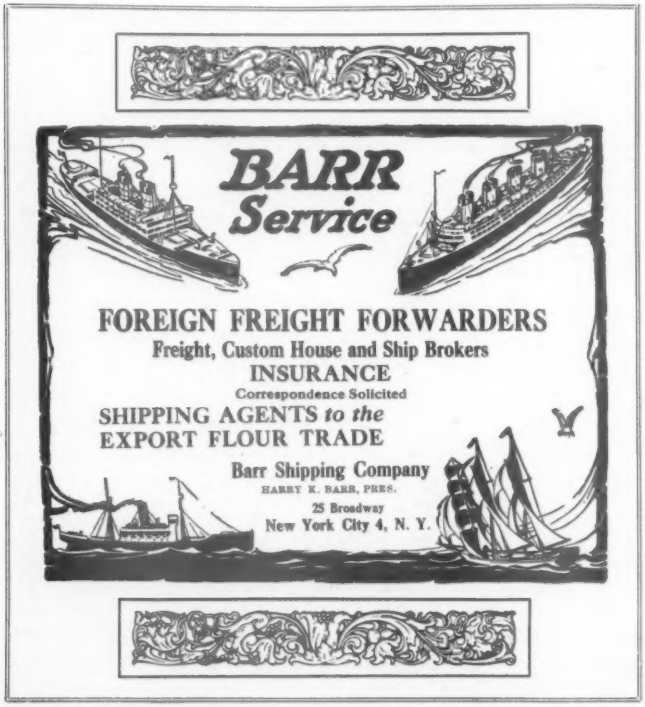
Italy—No regulations govern the size of packages which may be offered for sale. Marking packages to show weight or origin is not necessary. No certificates of analysis or quality are required.

Philippines—The principal label must indicate quantity and country of origin and it is imperative that packings afford maximum protection against excessive heat and moisture.

Portugal—Type of container in most demand is the bag; size being controlled by rationing in force at the time. There are no special requirements for marking packages to show gross net weight of the flour or the country of origin.

Saudi Arabia—Packing should be heavy enough to withstand the roughest handling and to baffle the most skillful and ingenious pilferage to which shipments are exposed both in transit and upon arrival. Although some imports are subject to duties levied on gross weight, considerations of safety are more important than savings in duty and shipping charges. Goods must pass through the excessive heat and dampness of the Red Sea and other tropical waters and as a result, packages are subject to considerable sweating in the holds of vessels and to exposure to sun and rain on the wharves. Waterproofing is strongly recommended. No special labeling or marking is required.

Spain—Type of container in most demand for flour is the jute sack, made of fibers from corchorus olitarius or corchorous capsularis, technically known as "68,118," with a capacity of 100 kilos.



United Kingdom Flour Exports

Note: In long tons, 000's omitted.
Source: The Northwestern Miller.

1950	9.8	1937	78.0
1949	9.1	1936	117.6
1948	9.6	1935	129.7
1947	9.7	1934	144.6
1939	80.8	1933	155.0
1938	106.3		

The principal markets for flour export were certain Scandinavian countries and those colonial and foreign territories in which European consumers of flour were too small numerically to warrant the establishment of a home milling industry. These territories included British West Indies, Gibraltar, Canaries and Madeira.

Taiwan (Formosa)—Shipments should be made in 49-lb. cloth bags.

Union of South Africa—Flour and meal of all kinds and semolina must be sold by net weight in the following authorized amounts: any multiple of ¼ oz. up to and including 6 lb., then multiples of 1 lb. up to and including 15 lb., and thereafter 25, 50, 100 lb. and in the case of flour, wheaten meal and rye meal, 200 lb.

Venezuela—Packaging requirements do not specify size or kind of bag or container; however, foods intended for human consumption may not be packaged in paper, cardboard, cloth or other materials which are colored with artificial colorings, nor in newspapers or other paper which is not adequate. Nevertheless such materials may be authorized for use as secondary wrappings or when they are of such nature that the coloring of the inscription on the exterior surface cannot modify or render injurious the foodstuffs contained in the opinion of the health authorities. Prepared flours which are sold in closed or sealed containers, must be labeled, prior to sale, to show the net metric weight of contents, superimposed on the non-metric marking which the original imported package may have carried.

Bleaching Regulations in Foreign Countries

The Office of International Trade, U.S. Department of Commerce, has supplied the following information on flour bleaching regulations in foreign countries:

Australia—Each state of the Commonwealth enacts its own food laws and regulations, resulting in variations with regard to flour bleaching; e.g., South Australia does not permit chemical bleaching of flour, but New South Wales permits bleaching by the electric process only.

Belgium—Bleaching is entirely prohibited by a royal decree of June 15, 1928.

Belgian Congo—There are no local regulations governing chemical improvers and bleaching. These processes are not used in the locally milled flour but are present in the imported flour which accounts for 95% or more of the consumption.

Brazil—Bleaching of flours is not permitted under the law but most imported flours have been bleached to some extent. Flours milled in Brazil are not bleached.

Bulgaria—Bleaching is permissible if wholesome agents are used.

Canada—Bleaching is permitted. Non-injurious ingredients may be added for modifying the color or baking properties; provided that, in the case of the addition of non-injurious ingredients, there must be stated clearly and conspicuously upon both the inner and the outer labels of all packages containing flour, so modified, the statement "This flour contains improvers."

China—No government laws have yet been promulgated in respect of treatment by chemical improvers of flour. Bleaching is practiced in many mills, the old fashioned Alsop process (nitrogen peroxide) being still in force.

Colombia—Bleaching is permitted; no regulations control the process.

Costa Rica—There are no regulations regarding the bleaching of flour, except that flours which circulate in commerce must not be bleached by harmful methods.

Cuba—Bleached flour may be imported into Cuba without restriction. The Cuban Sanitary Regulations provide that "Ordinary bread destined for public sale must be made from wheat flour recently made without any added material or signs of deterioration and without having been submitted to any process of bleaching for the purpose of disguising the time of milling." Efforts have been made to have the government interpret this regulation as a prohibition against the use of bleached flour. However, the government has refused to accept this interpretation and states that bleaching is only prohibited when it is done for the purpose of hiding the date of milling and for making old, deteriorated flour appear of good quality.

Denmark—Flour containing persulphate is prohibited.

Ecuador—There are no regulations either prohibiting or permitting the importation or use of bleached flour.

Eire—There is no prohibition on the use of chemical improvers and bleachers of which the following are those principally used: nitrogen peroxide, chlorine, nitrogen trichloride, benzoye peroxide, ammonium persulphate and acid calcium phosphate.

France—Legislation does not mention specifically that bleaching of flour is forbidden. It is considered that the legislation forbidding the use of chemical products in flour effectively establishes such prohibition.

French West Indies—While French legislation does not mention specifically that bleaching of flour is forbidden, it is considered that the legislation forbidding the use of chemical products in flour effectively establishes such prohibition.

Germany—All forms of bleaching are permitted.

Greece—Preparations based on the salts of sulphate and supersulphate of ammonia or of lime, as well as other chemicals, used for bleaching flour, are prohibited.

Guatemala—The Sanitary Code does not specifically mention the use of bleaching materials in flour. However, it states that the "Adulteration of the natural properties of foods, beverages and similar products is prohibited, as is also coloration with poisonous or harmful products, whether their toxic or harmful effect is direct or indirect."

Hong Kong—No regulations are involved; whether the flour is bleached or unbleached is not of consequence under the Pure Foods Regulations. It is a matter between the individual buyer and the mill or export merchant source of supply.

India—Provincial government regulations forbid adulteration of wheat flour but do not forbid bleaching.

Italy—Bleaching of flour is allowed; no specific regulations as to permitted agents or amounts.

Netherlands—Bleaching of flour is permitted provided the bleached product does not contain any harmful ingredient. However, there may be present in 100 milograms of wheat flour 20 grams of a mixture consisting of 3.5 grams of benzoyl peroxide and 16.5 grams of calcium phosphate. Other agents allowed are: 2 grams of orthoand metatoluye peroxide, mixed with 25 grams of wheat grits or with 12 grams of calcium phosphate; 25 grams of a mixture of equal parts of ammonium persulphate and calcium phosphate; and 5 grams of ascorbic acid.

New Zealand—Flour must not be artificially bleached.

Pakistan—As patents exist for bleaching and maturing the flour it can be presumed that bleaching in Pakistan is practiced to a certain extent.

Philippines—Flour bleached with nitrogen peroxide may not be imported.

Portugal—No information is available on bleaching flour.

Spain—Regulations do not permit the bleaching of flour with any kind of whitening substances but "in some parts of Spain flour is bleached by subjecting it to rays of artificial light for a certain length of time."

Sweden—Bleaching is permitted with the exception of the use of persulphate.

Switzerland—Bleaching is prohibited.

Union of South Africa—Flour milled in the Union may be treated only with peroxide of nitrogen generated by electricity, the treatment being regulated and restricted so that the total nitrates (estimated as sodium nitrate) in the treated flour shall not exceed six parts per million. The use of other bleaching agents or so called improvers is prohibited.

Turkey—Under Turkish law no bleaching of flour is allowed.

Venezuela—There appear to be no regulations regarding the bleaching of flour except that the flour must not be bleached by bromates, persulphates and other oxidizers that may contribute to its breadmaking value.

United Kingdom Wheat Price

Note: By quarter of 480 lb. and per bushel of 60 lb. Source: The Northwestern Miller.

	Per qr			Per bu		Per qr			Per bu
	£	s	d			£	s	d	
1950.	5	10	9	$1.94*	1936.	1	11	1	0.93¼
1949.	4	19	7	$1.80*	1935.	1	2	5	0.67¼
1948.	4	10	0	2.70	1934.	1	0	8	0.62
1947.	3	11	9	2.15¼	1933.	1	2	11	0.68¾
1946.	3	3	3	1.90	1932.	1	5	4	0.76
1945.	3	1	2	1.85	1931.	1	4	6	0.73½
1944.	3	4	3	1.92¾	1930.	1	14	4	$1.03
1943.	3	10	0	2.10	1929.	2	2	5	1.27¼
1942.	3	8	3	2.04¾	1928.	2	3	2	1.29½
1941.	3	2	10	1.88½	1927.	2	9	4	1.48
1940.	2	3	4	1.30	1926.	2	13	3	1.60
1939.	1	1	8	0.65	1925.	2	12	4	1.57
1938.	1	9	3	0.87¾	1924.	2	9	5	1.43¼
1937.	2	0	2	1.20½	1923.	2	2	4	1.27

*Exchange rate, $2.80 to £1.

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Foreign Regulations Governing Self-Rising Flour

The Office of International Trade, U.S. Department of Commerce, has supplied the following data covering foreign self-rising flour regulations:

Belgium and Luxembourg—There is no objection to the sale of self-rising flour which contains baking powder or other leavening preparations, provided the leavening agents are not considered detrimental to public health. No certificates of analysis or quality are required.

Brazil—There is no objection to self-rising flour. However, the leavening agent must conform to the regulations on the subject. The pure food law prohibits the importation and sale of food preparations containing salts of aluminum, thus limiting the leavening agents that may be used in self-rising flour to the cream of tartar type.

Bulgaria—Self-rising flour is permissible insofar as it does not contain any harmful leavening agents.

Canada—Self-rising flour may contain baking powder but must be so marked.

Colombia—There are no restrictions on self-rising flour or the use of particular leavening agents.

Costa Rica—There appear to be no restrictions on self-rising flour.

Cuba—The importation of self-rising flour is not prohibited. The Department of Sanitation has prohibited the importation of certain types of baking powder which contain alum, aluminum sulphate and similar compounds.

Ecuador—There is no prohibition on the importation of self-rising flour. There are no regulations on the type of leavening permitted except that all food products imported into Ecuador must not be injurious to health. Fresh yeast destined solely for the baking industry should be accompanied by an official certificate of purity issued at the place of origin and authenticated by the Ecuadoran Consul at the port of embarkation.

France—Legislation does not mention specifically that the sale of self-rising flour is forbidden, but it is considered that the legislation forbidding the use of chemical products in flour effectively established such prohibition.

French West Indies—Sale of self-rising flour is effectively forbidden by the decree of April 15, 1912, which prohibits the use of chemical products in foodstuffs. Grocers are allowed to sell chemical leavening agents for family use in the making of pastry. Bakers and pastry shops are not allowed to use self-rising flour nor to sell this product.

Greece—"Flour shall not be altered in any way nor deteriorated and shall be free of any adulteration to conceal its alteration or to make it appear as a flour of superior quality." This provision is interpreted to meaning that inclusion of baking powder and other leavening preparations in the flour is not permitted.

Guatemala—The Sanitary Code does not specifically mention any type of flour or leavening. There has apparently been no restriction on the importation of yeast and baking powder since Nov. 18, 1931, when bakery regulations were amended to leave out the provision prohibiting "the use of all imported yeast and baking powder."

Italy—The importation or sale of wheat flour containing any foreign substance whatsoever is prohibited. This provision prevents the importation of self-rising flour. The exact substances prohibited are "mineral substances, such as alum, copper sulphate, zinc sulphate, talc, chalk, gypsum or in any way adulterated with extraneous powders." However, special pastry or confectionery flour and pancake flours in small packages are not considered as falling under this prohibition, the customs having ruled that such flours be classed for customs purposes as "starches and flours specially prepared, or simply put up in small containers or packages of any kind for alimentary use," with about five times as high a duty as ordinary wheat flour.

Netherlands—Self-rising flour may be imported and sold under monopoly control provided the leavening agent is not one forbidden by law. (Self-rising flour must contain not more than 10 grams of starch and not over 3 grams of a harmless leaven to 100 grams of bolted flour.)

New Zealand—Self-rising flour is flour to which the ingredients of baking powder have been added. It must liberate not less than 1.64 parts per centum by weight of carbon dioxide when moistened and heated, and it must contain not more than 1/10 of one part per centum of sulphates calculated as calcium sulphate. It must not contain any other added substance.

Portugal—Self-rising flour must not contain any harmful leavening agents. Alum baking powders are not permitted.

Spain—Self-rising flours containing baking powder or other leavening agents may be sold in Spain provided they are designated as food preparations and contain no harmful substances.

Sweden—There are no regulations forbidding the use of self-rising flours which include baking powder or other leavening preparations, but these must be sold with declarations as to contents in order to avoid penalty.

Switzerland—Self-rising flour must contain no combinations of ammonia (with the exception of carbonate of ammonia), nor combinations of aluminum, nor substances which release oxygen, such as perchlorates and chlorates, perbromates and bromates, persulphates, etc., nor even sulphates, oxalic acid, soap or mineral substances (argil, carbonate of lime, insoluble phosphates, infusorial earth or sand).

Union of South Africa—Self-rising flour means the pure, sound, bolted product or finely ground wheat with the addition of an aerating agent. Self-rising flour is sold in packages of 4 oz., 8 oz., 1 lb., or any integral number of pounds.

Venezuela—There appear to be no restrictions on self-rising flour. In general, food products offered for sale which contain components, must so state that fact on the label.

Yugoslavia—Only such leavening agents are permitted which are found to contain a normal power of fermentation and are not mixed with chalk, plaster, saccharine or "other matters harmful to health."

United Kingdom Controls and Regulations

Purchasing and Importation—Private purchasing and importation, suspended at the beginning of the war, is still forbidden except under license. In practice this means that the Ministry of Food is the sole buyer and importer of all grain, flour and feedingstuffs. Purchases of grain and flour are made by the Ministry through the media of trade channels, i.e., shippers' representatives and importers in the U.K., except in the case of Australia where there is direct government purchasing through the Ministry of Food and Australian Wheat Board.

Imported Flour—The separate distribution of imported flour to bakers and other consumers which ceased in 1942-3 with the introducton of British milled 85% extraction flour has not been resumed except for a short period in 1946 when the rate of extraction of home milled flour was reduced to 80%. Some releases of imported flour are permitted under license for special purposes such as certain types of biscuit manufacture, ships' stores, export, etc. Otherwise all supplies of imported flour go to the British millers for mixing in with home milled 81% (national) flour. The rate of admixture is varied from time to time according to availability, the present rate in England and Wales being 7½% and 12½% in Scotland and Northern Ireland.

National Flour—The rate of extraction of British milled national flour was reduced from 85% to 81% on July 28, 1950. Taking into account the admixture of imported flour, this is calculated to give an extraction rate of approximately 80% which was the minimum recommended in the Post War Loaf Conference Report of 1945. National flour is milled from an all wheat grist, the rate of extraction being calculated on "dirty" wheat intake. The wheats constituting the grist vary according to availability but following the wartime and postwar policy of increased production of native wheat, the percentage of home grown wheat is high, ranging this year from 40% during the first few months following the harvest and decreasing as the season advances. Flour used for bread making must contain the maximum amount of germ which the mill plant can incorporate. "M" Flour which is national flour without germ can be supplied for flour confectionery, biscuit and household use, etc. All national flour has added to it 14 oz. of "creta preparata" (calcium carbonate) a sack of 280 lb. This addition is to make good the natural calcium which is rendered ineffective by the phytic acid in long extraction flour.

Price of Flour—All flour for human consumption is heavily subsidized and sells in bulk to bakers, packers, manufacturers, etc., at the fixed price of $7.28 for 280 lb. delivered in. This price is for flour packed in returnable bags of 140 lb. the bags being charged at 70¢ each. The price is also subject to discounts for prompt payment equivalent to 5¢ in $2.80 for payment in 7 days, 4¢ for payment in 14 days, 2¢ for payment in 21 days, net in 28 days. Imported flour delivered under license for human consumption is sold at the same basic price but is packed in non-returnable bags which are charged at 12¢ each for jute bags and 21¢ each for cotton bags. The baker receives a further subsidy in the form of a rebate on flour used for bread. This rebate is $1.14 in England and Wales and 98¢ in Scotland on each sack of 280 lb. The biscuit manufacturer has to pay a levy of $7.89 for 280 lb. on all flour used for manufacture of biscuits for home consumption. Flour for ships stores, export, dog biscuit manufacture, industrial uses, and other special licensed purposes is charged at a price approximating to the replacement value. The price, according to the use entailed, is $13.58@15.12 for 280 lb. ex-warehouse less the usual discounts plus 12¢ a bag for non-returnable jute bags of 140 lb. and 21¢ for non-returnable cotton bags of 140 lb.

Method of Flour Distribution—Distribution is made to bakers and other consumers by millers, importers and factors. As the separate distribution of imported flour is not allowed, supplies of national flour for distribution by importers are arranged by small "Allocating Committees" in the seven main ports of London, Liverpool, Hull, Bristol, Glasgow, Leith and Belfast, comprising one representative of the importers and one representative of the home millers. Supplies of imported flour to the mills for mixing in are made by the Port Area Grain Committee for each of the seven ports.

RUD. MADSEN

Importer and Millers' Agent of Flour, Rice and Corn Products

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COPENHAGEN, DENMARK

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Import Regulations of Foreign Countries

The Office of International Trade, U.S. Department of Commerce has supplied the following data on import regulations in foreign countries.

China—Under regulations promulgated by the Chinese Nationalist Government, all goods imported into Taiwan require a license. In addition, all imports are classified into three categories: (1) permitted; (2) controlled, and (3) prohibited goods. Wheat, flour and bran are all included in the list of permitted imports.

Costa Rica—Under the present exchange control system, import permits are not required, but each import order must be registered with the Exchange Control Board in order for the importer to be eligible to receive foreign exchange for payment. Imports are classified into four categories according to essentiality; wheat and wheat flour both fall in the highest "Preferential" class, but bran does not appear in any list. Exchange may be bought for purchase of preferential imports at the official selling rate of 5.67 colones per dollar, and no colon deposit is now necessary at the time of ordering products in this group, which are, in general, the only ones for which exchange may be made available on a letter of credit basis.

Ecuador—All flour shipped to Ecuador, must be accompanied by a certificate of analysis by the competent authority of the place of origin, which has been authenticated by the Ecuadoran Consul at the port of embarkation, without prejudice to the right of the customs authorities to verify, when they see fit, the correctness of the analysis. All goods imported must be covered by an import license. Although wheat and flour are on the Class A import list they are limited under quota restrictions, 35,000 bags of wheat flour permitted entrance monthly for consumption of the coastal regions and 6,000 metric tons of wheat annually for the flour industry of the Sierra.

French West Indies—All importers are required to procure an import license prior to the placement of orders for merchandise abroad.

Gibraltar and Malta—Most of the importing trade is conducted through agents established by American manufacturers. Malta prohibits the importation of wheaten flour containing less than 35% by weight of wet gluten. A few local firms buy for their own account.

Guatemala—Only patented or privileged flour of 72% extraction may be imported.

Hong Kong—It is understood that Hong Kong's requirements of wheat and flour are to be met by Australia; therefore, American wheat and flour will not be granted an import license by the Colony's Department of Commerce and Industry. In transit shipments of American wheat and flour, however, may be made.

India—Under regulations for January-June, 1951, no import licenses will be granted for the importation of wheat flour from the dollar area.

Malaya and Singapore—As a result of the sterling area dollar problem, the governments of Malaya and Singapore restrict imports from the U.S., the Philippines, Japan, Canada and other dollar areas in the Western Hemisphere. Until further notice, the importation of wheat, flour and bran, from hard currency areas is prohibited, according to the latest regulations.

Nicaragua—Prior import permits are needed for imports into Nicaragua, according to present exchange control regulations. Imported products are classified into four categories according to essentiality; wheat flour is classified in the essential group, second highest category, but wheat and bran do not appear in the lists. A deposit in cordobas of 25% of the c.i.f. value is required for imports of essential products.

Pakistan—Under regulations for January-June, 1951, no import licenses will be granted for the importation of wheat flour from the dollar area.

Paraguay—All goods imported into Paraguay are subject to import restrictions as a result of exchange control. The Paraguayan importer must obtain an exchange contract for the amount of exchange needed before placing a purchase order abroad. The Central Bank is the exchange control agency and at the present time little or no dollar exchange is being granted for imports of wheat or wheat products from the U.S.

Philippines—Import license must be obtained from Price Stabilization Corp., which also allocates import quotas among consumers, dealers and importers.

Thailand—There is no restrictive treatment of wheat or flour. Flour may be freely imported and payment made in any currency.

Union of South Africa—Permit required for importation of wheat and wheat products. Imports of macaroni, spaghetti and vermicelli are prohibited except by special permit issuable by the Director of Imports only "in exceptional circumstances."

United Kingdom Corn Imports

Note: In bushels. Source: The Northwestern Miller.

Country of origin—	1948	1949	1950
British countries ..	20,113	117,734	425,376
Russia	5,196,014	1,901,038	10,675,338
Rumania	1,784,237	.....	577,036
U. S. A.	.....	3,469,995	9,536,632
Argentina ...	42,592,102	15,597,582	12,195,136
Other foreign countries ..	58,408	5,081,716	5,640,592
	49,650,874	26,168,065	39,050,110

United Kingdom Imports

Note: Wheat and flour, by crop years, ending Aug. 31, 000's omitted. Source: The Northwestern Miller.

	Wheat, bu.	Flour, bbl.	Total as wheat, bu.
1950.....	136,728	4,780	158,238
1949.....	173,848	8,239	210,924
1948.....	149,432	9,061	190,207
1947.....	153,776	8,621	192,570
1946.....	126,672	7,214	159,135
1945.....	132,537	6,204	160,455
1944.....	105,728	9,047	146,439
1943.....	121,368	8,201	158,273
1942.....	130,176	4,285	149,368
1941.....	201,326	8,090	238,241
1940.....	214,816	6,598	244,507
1939.....	198,016	4,190	216,871
1938.....	189,702	4,387	209,443
1937.....	186,536	4,709	207,726
1936.....	191,496	5,062	214,375
1935.....	186,920	4,659	207,886
1934.....	199,640	6,131	227,230
1933.....	202,504	5,242	226,093
1932.....	224,672	5,698	250,313
1931.....	214,520	6,378	243,221
1930.....	187,070	6,536	214,455
1929.....	194,774	4,968	217,132
1928.....	196,048	5,668	221,554

United Kingdom Wheat Imports

Note: In bushels. Source: The Northwestern Miller.

Country of origin—	1948	1949	1950
Australia .	28,783,858	30,475,781	11,154,424
Canada ...	124,211,504	136,683,186	91,723,360
Oth. British countries.	25,484	4	2
U. S. A.	342,048	10,356,933	16,718,040
Argentina.	3,917,575	.....	.....
Oth. foreign countries.	670,219	1,183,301	2,189,040
	157,950,688	178,699,205	121,784,866

U.K. Wheat Products Imports

Note: In bbl. Source: The Northwestern Miller.

Meal and flour imported from	*1948	1949	1950
Australia	1,994,046	1,428,200	445,768
Canada	7,269,954	4,544,209	4,032,545
Other British countries	251	198	1,683
U. S. A.	4,229	760,387	422,759
Argentina	171	.....	.....
Other foreign countries	663	6	36
	9,269,314	6,733,000	4,902,791

*Includes semolina.

United Kingdom Grain Imports

Note: Year ending Aug. 31. In bushels (000's omitted). Source: The Northwestern Miller.

	Wheat	Corn	Oats	Barley
1950...	136,728	35,863	6,608	43,143
1949...	173,848	46,312	9,960	21,115
1948...	149,432	39,789	14,440	29,133
1947...	153,776	13,431	11,670	2,573
1946...	126,672	6,188	4,980	6,648
1945...	132,537	20,422	7,312	4,888
1944...	105,728	4,632	....	....
1943...	121,368	2,614	....	....
1942...	130,176	5,314	....	....
1941...	201,326	27,111	7	2,986
1940...	214,816	33,751	5,720	21,326
1939...	198,016	93,749	5,140	32,658
1938...	189,702	115,162	5,513	46,376
1937...	186,536	149,040	5,897	40,376

Statistics for the Republic of Ireland are not included.

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Flour Trade in Germany

Prewar—Imports of wheat flour into Germany were very small after 1927 due to a new duty tariff which was introduced in order to protect German agriculture and the German milling industry. Imports of flour after 1933 were practically nil because Germany was striving for self-sufficiency.

Postwar—In normal times Germany always produced sufficient wheat to cover her own requirements. Most agricultural products are produced in the eastern part of Germany which since the end of the war has been occupied by the Russians. None of the production of the Russian zone of Germany is being sent to the western part of Germany. In 1945 the Allies immediately started importing wheat and wheat flour into western Germany for the prevention of riots and epidemics. No details are available for the eastern zone.

Flour Imports—The following quantities of wheat flour have been imported into western Germany since the end of the war.

1945-46 approximately .. 1.1 mil. metric tons
1946-47 approximately .. 1.3 mil. metric tons
1947-48 approximately .. 500,000 metric tons
1948-49 approximately .. 250,000 metric tons
1949-50 ..... None

Practically all of this came from the U.S. No. flour entered into Germany since February, 1949, in order to protect the German milling industry, the capacity of which suffices to fulfil the requirements of western Germany.

Purchase and Distribution—The above quantities were bought and imported by the U.S. army and handed over for distribution to German importers. The distribution has been effected under the control of the German Board for Feed and Agriculture in cooperation with the Association of German Grain and Flour Importers. All of these imports were free of duty.

Prices—The exact price which Germany had to pay for these postwar flour imports is not known to the German public. Selling prices were fixed by the German Board and the Allied Military Government respectively. This inland selling price lies considerably below world market price. Importers distributing these flour imports received a small margin out of the selling price. No regular imports of flour through private channels and with private capital have been effected so far and German importers have been distributors only.

Future—Flour imports were resumed early in 1951 and already contracts have been placed for the purchase of 25,000 tons from France and 27,000 tons from Australia. Arrangements are also being made for the shipment of 20,000 tons from the U.S. and it is possible that this will be followed by further similar monthly allotments during the year. Negotiations are also proceeding for the supply of 25,000 tons from Canada.

These deals are on a government to government basis but efforts are being made by the German trade, through the German Flour Importers Assn., which was formed in the spring of 1950 to persuade the American and German officials that the handling of trade through private channels would lead to greater efficiency. Before this can be done, however, the questions of subsidies and duties have to be settled by the German government in cooperation with the Allied Control authorities. Currently flour imports bear a duty of four German marks for each 100 kilo together with 3% ad valorem duty. The government decided not to levy the duty in respect of the French transaction. Wheat is imported duty free and the importers are protesting at this unfair discrimination against flour.

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Flour Trade in Norway

Normal importation of wheat flour into Norway in prewar days amounted to 35,000 to 40,000 tons annually and was mainly limited to protein-rich flour from the United States and Canada, consisting of types which experience over a number of years had proved suitable to this market. The flour was bought from United States and Canadian mills by the State Grain Corp. (Statens Kornforretning), which has been the sole buyer since 1915, with the exception of two years, 1927-1929, when there was an interval of free trade. The import figures given above included European flour up to about 10,000 tons per year.

The import figure for the first 10 months of 1950 was 47,000 tons wheat flour. The figures for the corresponding periods of 1948 and 1949 were 30,000 tons and 31,000 tons, respectively.

Methods of Buying—All buying is done by the State Grain Corp., Oslo (Statens Kornforretning). The institution, when intending to buy, notifies agents, who in turn cable their milling connections for offers. Payment takes place by sight against documents in New York, mainly under ECA. All sales are made on f.a.s. basis, the buyer providing for ocean freight. The buyer also covers war and marine insurances. No special contract is used, years of experience having built up complete confidence between buyer and seller. Buying is mainly done direct from mills, only seldom from exporters, but always through Norwegian agents.

United Kingdom Wheat Acreage

Note: Total area under grain crops in England and Wales in 1943 and 1944 was greater than at any time since agricultural statistics were tabled. The maximum wartime acreage in wheat was the highest since 1874, in barley since 1901, in oats since 1919. The maximum wheat acreage was reached in the crisis year of 1943, viz: 3,461,000 acres (000's omitted). **Source:** The Northwestern Miller.

Year—	Area acres	Crops bu.	Yields per acre bu.
1950	2,476	94,173	38.0
1949	1,964	79,744	40.6
1948	2,279	87,160	37.3
1947	2,163	62,179	28.8
1946	2,066	68,696	33.3
1945	2,365	81,950	34.8
1944	3,230	118,160	36.6
1943	3,461	129,680	37.4
1942	2,516	96,480	38.3
1941	2,265	75,840	33.6

United Kingdom Flour Output

Note: Excluding admixture of import-Note: In long tons, 000's omitted. Source: The Northwestern Miller.

1950	4,196	1942	4,394
1949	4,476	1941	4,600
1948	4,565	1940	4,391
1947	4,435	1939	3,939
1946	4,416	1938	3,935
1945	4,524	1937	3,829
1944	4,470	1936	3,941
1943	4,527	1935	3,899

Australian Flour Exports

Note: Australian wheat flour exports by countries of destination, by crop years, in 100-lb. sacks, 000's omitted. Source: Quarterly Summary of Australian Statistics.

Country—	1946-47	1947-48	1948-49	1949-50
U. K.	2,000	940	4,860	353
Aden	...	720	780	86
Burma	120	440	120	3
Ceylon	3,420	3,800	3,760	1,299
Hong Kong	660	440	200	910
India	1,000	1,180	1,440	1,884
Malaya	3,880	2,720	1,940	774
Mauritius	340	920	400	332
New Zealand	340	...	...	1
Pacific Islands (Foreign)	280	...	...	...
Un. of S. Africa	180	...	...	3
Port. E. Africa	...	...	...	...
Other British Countries	640	280	720	460
China	780	...	...	...
Egypt	...	1,340	860	627
Fr. Indo-China	220	260	120	...
Madagascar	80	120	60	...
Reunion Is.	40	60	60	...
Other French Dependencies	...	300	220	61
Greece	...	200	...	...
Japan	80	...	...	187
Brazil	...	...	180	3
Lebanon	...	...	560	41
Borneo	40	...	...	...
Netherlands East Indies	60	440	...	30
Palestine	...	940	...	7
Singapore	...	...	...	214
Peru	...	...	...	98
Siam	...	...	...	121
Iraq	...	...	...	1
Other Foreign Countries	420	840	520	368
	15,320	15,760	17,060	7,763

Foreign Mill Capacity

Note: The flour milling capacity of European and other foreign countries as shown in the following table covers the more important mills in each country where figures are available. It would be impossible to estimate the total milling capacity of each country, particularly the more backward countries, because of the large number of very small mills, many of them with less than one sack (28 lb.) per hour capacity. For certain countries no milling capacity figures are available. **Source:** The Northwestern Miller.

	No. of mills	Est. daily cap., sacks (100 lb.)
Belgium	118	103,752
Bulgaria	400	56,358
Czechoslovakia	837	202,888
Denmark	70	.....
France	2,545	658,560
Greece	234	71,496
Holland	90	67,728
Italy	557	96,688
Norway	....	42,777
Portugal	110	72,024
Rumania	314	138,276
Spain	750	34,056
Sweden	450	....
U. K. (inc. Eire)	400	475,776
Yugoslavia	900	120,960
Australia	200	*7,616
New Zealand	50	*560
Palestine	50	*627
South Africa	75	2,576
Syria	25	336

*Estimated total capacity in 100-lb. sacks per hour.

Figures not available for Finland, Germany, Hungary, Switzerland and U. S. S. R.

United Kingdom Feed Imports

Note: In tons. Source: The Northwestern Miller.

	1948	1949	1950
Cereal by-products—			
Bran and pollard	142,855	80,717	89,132
Rice bran, rice meal, dust, cargo broken rice	63,106	45,364	24,410
All other sorts	3	3,147	3,392
Oil seed cake, meal (except husk meal)—			
Cottonseed cake and meal	21,192	52,881	100,161
Linseed cake, meal	277,370	86,254	10,510
All other animal feeds	54,546	42,875	58,500

Danish Controls for Flour

The Danish government controls imports and exports through an institution known as "Varedirektoratet," with some 750 employees. The banks and money are controlled by Danmarks Nationalbank. No change in this situation is expected until the balance between imports and exports becomes normal.

Flour Imports—The import of flour into Denmark stopped at the outbreak of World War II and was only resumed as a special case in 1950 when approximately 8,000 tons was purchased. Some deals may be made during 1951 when a proportion of Denmark's allocation of 44,000 metric tons of wheat under the International Wheat Agreement will be bought as flour. Business is not likely to be large.

Flour Buying Methods—The purchases were made under government auspices through the trade a new body "Melbranchens Faellesindkob" being set up as a combined purchasing organization on behalf of all importers in membership of the flour trade organization. Previous to the war the flour import trade in Denmark was done through flour mill agents, who were in constant cable communication with their flour mill connections in the U.S. and Canada. The flour agents sold the flour to the various importers, who took up the documents. The flour was sold c.i.f. Danish ports and delivered in cotton bags of 100 kilos (220½ lb.) and 50 kilos (110¼ lb.). Prices were quoted per 100 kilos. Insurance cover was against "all risks." No specific contract form was used but short sales contracts bore the usual strike clauses. Arbitration clauses also were included in the contract, some with buyer's option of arbitration either in New York or London; others, for arbitration in Copenhagen. It is hoped that eventually there will be a return to direct trading under these terms.

Flour Importers' Association—The interests of the flour agents and the flour importers are looked after and safeguarded by a flour importers' association known as "Foreningen af Danmarks Importorer og Grossister i Melbranchen," whose officers are: president, Hubert Justesen, Brodr. Justesen, Copenhagen; vice president, Troels Fode, Kompagnistraede 32, Copenhagen.

Milling in the U.K.

The flour milling industry of the U.K. consists of about 400 mills, of which the majority are owned by one or the other of five important groups, namely, Ranks, Ltd., Spillers, Ltd., Hovis, Ltd., Co-operative Wholesale Society (England) and the Scottish Co-operative Wholesale Society. Some of the large independent millers also operate two or more mills. The total milling capacity of the country is around 100,000 long tons per week. Several large plants, mainly at the ports, were destroyed as a result of enemy action during the war, but the lost output was regained by the recommissioning of mills which were closed down by the Millers Mutual Assn., as redundant before the war. Since the war progress has been made with rebuilding schemes, the largest being sponsored by Ranks, Ltd., with mills at Gateshead and Southampton already completed, by Spillers, Ltd., and the Scottish Co-operative Wholesale Society. Capacity during and immediately after the war was maintained by the high extraction rate of 85% instead of the prewar 70%. The extraction rate was reduced to 81% at the end of August, 1950.

The sackage capacity of the individual mills is always regarded as confidential and is never divulged to competitors or for publication.

Flour Trade in India

Flour mills in India have to mill various types of flour according to local customs, and there is no fixed rate of extraction. At present flour mills in this country are manufacturing whole meal flour only which is used for making Chappaties (unleavened bread) which are freshly baked prior to consumption. This whole meal flour is most popular for this purpose. Flour as known to western countries is not being manufactured at present as there is a ban by the government on the production of fines. Flour milled from barley or corn is normally not sold separately and is not popular with the public. Indian flour mills are at present working under capacity and as far as is known no new mills are being planned or under construction. Milling machinery, old or new, is allowed to be imported only after obtaining an import license from the Chief Controller of Imports, Government of India, New Delhi.

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WORLD IMPORT DUTIES on FLOUR and GRAIN

THE Office of International Trade, U.S. Department of Commerce, has supplied the following data covering import duties on wheat, flour and bran, as of Feb. 1, 1951.

The department points out that it cannot guarantee that the rates here given will always be applied to particular shipments, since duties are subject to change at any time. These duties should be confirmed after a lapse of some months.

Tariff information regarding the tariff status of Canadian wheat, flour and bran is provided by the International Trade Relations Division, Department of Trade and Commerce, Ottawa.

When two or more rates of duty for the same article are indicated, products of the U.S. as a rule are admitted at the lowest ("minimum") rate, except (a) into Canada, where the "intermediate" rate applies; (b) into British Commonwealth countries, where the "preferential" rate does not apply to non-British imports.

Where British preferential rates are shown for the British countries listed, they are accorded to Canadian wheat, flour and bran except in Australia, where the preferential rate is accorded to Canada only in respect of bran. In those British areas for which no preferential rates are given (including the United Kingdom in respect of wheat), the rates shown apply equally to the United States and Canada.

In all other countries listed below, except Cuba and the Republic of Honduras, imports of Canadian grain and its products enjoy equal tariff treatment with imports from the United States either through the operation of most-favored-nation agreements concluded by Canada with those countries or by the fact that the rates apply equally to imports from all countries. Cuba accords to the United States an exclusive preference on most grain and its products. However, under the General Agreement on Tariffs and Trade the Cuban preference to United States wheat was abolished and the preference on flour considerably reduced. In the Republic of Honduras, certain minor supplementary charges are levied at a higher rate on imports of wheat flour from Canada than on similar imports from the United States.

Europe

All rates of duty are given in 100 kilos (220.46 lb.) unless otherwise specified.

ALBANIA

No information is available regarding the present customs regime in Albania. U.S. trade with Albania is being conducted in accordance with current U.S. export control regulations.

AUSTRIA

Purchases of bread grains and flours are handled through the U.S. Commodity Credit Corp. Transactions in other grains and their flours are handled through ordinary commercial channels. Temporary exemptions from customs rates on grains and their products were granted until June 30, 1951, by a law of April 27, 1950.

The Transitory Customs Law of June 18, 1946, reinstated the Austrian Customs Law of Jan. 10, 1920, and the customs duties in effect at the time of the anschluss in 1938. Duties are stated in gold crowns but are payable in Austrian schillings at the rate of one schilling to one gold crown.

	Duty in schillings (general rate)
Wheat, rye, barley, oats	6.00
Bran, corn	Free
Flour and other milling products	8.00 per 200 kilo of grain

Imports of the above products require an import license and a foreign exchange permit.

Sales or similar internal taxes: 1% of duty-paid value for cereals and products made of cereals only, plus a surtax of 50% effective June 1, 1949.

Supplementary duties of 10 schillings 100 kilo on wheat and 4 schillings 100 kilo on rye and barley are currently in effect.

BELGIUM - NETHERLANDS - LUXEMBURG

Wheat, ad valorem	Free
Rye	Free
Barley	Free
Oats	Free
Maize (corn)	Free
Buckwheat	Free
Flours of the above, ad valorem	3%

A quantity not in excess of 50,000 metric tons a year may be imported into the Netherlands for consumption exclusively in the Netherlands free of customs duty. After 50,000 tons have been imported, the normal 3% rate applies.

Import licenses are required in Belgium-Luxemburg and in the Netherlands for imports of grains from all areas.

Transmission tax—	% of duty-paid value
Wheat, spelt, rye and meslin	3.50
Corn	9.00
Other grain	4.50
Wheat and rye flour, groats and semolina	*3.50
Other flour	*4.50
Bran	4.50
*Packed in packages for retail sale	9.00

BULGARIA

No recent tariff information is available. U.S. trade with Bulgaria is being conducted in accordance with current U.S. export control regulations.

CZECHOSLOVAKIA

	Czechoslovak crowns
Wheat	100.00
Rye	125.00
Barley	100.00
Oats	100.00
Flour and milling products from cereals and pulse	300.00
Semolina imported under special license for the manufacture of food pastes, up to 2,000 metric tons annually and under special conditions	15.00

Import turnover tax varies according to commodity pursuant to General Tax of Dec. 24, 1948. The General Tax rates on grains are as follows (in crowns 100 kilos): Wheat, 4.000; rye, 3.45; barley, 2.75 for feed barley; 2.90 for industrial uses; malting, 3.30; oats, 2.85; corn, 3.50. Barley used for other purposes is subject to a tax of 1% of the wholesale price and flour, all types, to a tax of 4% of the wholesale price. General tax rates on milling products are currently under preparation by the Czechoslovak Minister of Finance.

All imports require an import license. The following state-controlled companies are exclusively authorized to engage in foreign trade in the designated commodities: "Koospol, Ltd.," agricultural products and implements; "Centrokomise, Ltd.," foodstuffs; "Hopmalt," hops, malt and malt products.

DENMARK

Import licenses are required for flour, Wheat, rye and their products, n.o.s...Free groats and flakes. All imports are subject to exchange control.

FINLAND

	Finnish marks
Wheat	*2.00
Wheat flour:	
Unbolted	†0.75
Bolted	‡1.75
Bran	1.35

All imports into Finland are subject to permit and exchange control.

*Millers may secure a duty reduction of 1.75 marks per kilogram on a quantity of imported wheat equal to the domestic wheat ground by them.

†Plus the duty on unground wheat.

‡Plus the duty on 1½ kilograms of unground wheat. A duty of 4 marks per kilogram may be established, subject to conditions, on flour for the manufacture of macaroni.

FRANCE

The importation of wheat and bread flours is under the monopoly control of the National Cereal Office. Import restrictions or license requirements also apply to all grains and flours. Import duties are temporarily suspended, except on oat flakes. Import permits are required.

	Minimum in French francs*
Wheat flour, 80% extraction or more	70% ad val.
Wheat flour, 60 to 79% extraction, inclusive	70% ad val.
Wheat flour, less than 60% extraction	30% ad val.
Oatmeal (breakfast cereal)	30% ad val.
Oat flakes	30% ad val.
Rye flour	50% ad val.
Wheat	30% ad val.
Oats	50% ad val.
Barley	50% ad val.
Rye	50% ad val.
Corn	30% ad val.
Bran	Free

Production tax: Wheat, oats, barley, rye and corn, exempt; wheat and rye flour, intended for bread making, exempt; not intended for bread making 5.5% ad valorem; oatmeal, oat flakes and bran, 5.5% ad valorem. Milling tax on wheat, in francs per quintal of flour (quintal equals approximately one hundredweight).

Portion comprised between 3,001 and 8,000 quintals	2.15
Portion comprised between 8,001 and 30,000 quintals	4.00
Portion comprised between 30,001 and 50,000 quintals	5.25
Portion in excess of 50,000 quintals	6.50

Transaction tax, 1%.

*French duties as listed apply in the Saar territory.

GERMANY

Purchases for western Germany are handled through the U.S. Commodity Credit Corp. Temporary exemptions from import duties on grains and their products have been provided by Economic Council Ordinance No. 159 of Aug. 16, 1949. It is believed that customs duties are also suspended on foodstuffs imported by the Soviet authorities into eastern Germany. A new customs tariff for western Germany has been prepared and is expected to be put into force in the near future. The proposed schedule, which is subject to approval by the German Parliament and the Allied High Commission for Germany, follows (ad valorem basis): Wheat, spelt and meslin, 20%; rye, 20%; barley and winter barley, free; oats, steamed or not, free; maize: flat, white or other, free; buckwheat, free. Cereal flours—Wheat, spelt and meslin: (1) of an extraction rate of less than 60%, rate of wheat plus 15%, (2) of an extraction rate of 60% or more, rate of wheat plus 15%; rye, rate of rye plus 15%; barley, 12%; oats, 12%; maize, 12%; rice, 30%; other, 20%.

GREECE

	Maximum	Minimum
	Metallic drachmas	
Wheat flour	11.00	9.00
Wheat	7.50	6.00
Bran	3.00	2.00

Above duties are stated in metallic drachmas, but are payable in paper drachmas at the rate of 4,500 paper drachmas to 1 metallic drachma on wheat flour and bran and 3,375 to 1 on wheat. In addition to the duty, there are surtaxes amounting to three fourths of basic duty, payable at the

same ratio and a "Turnover" tax of 5.5%. The milling quotas for wheat limit imports of American grain.

The importation of wheat and flour is subject to permit.

HUNGARY

All imports are subject to license. The following rates of duty are as of March, 1946:

	Gold crowns
Wheat and spelt	6.30
Rye and maslin	5.80
Millet and buckwheat	1.20
Barley	5.00
Oats	4.80
Corn (provisionally)	Free
Wheat flour and semolina	13.00
Rye and maslin flour	12.00
Pearled barley, other milled barley products	12.00
Milled oat products	10.00
Milled corn products	8.00
Milled millet products; other milled cereal products, other than rice	10.00

Duties are stated in gold crowns but are payable in forint. One gold crown equals four forint.

In the past, temporary removal or reduction of duties on cereals has been made for short periods and usually for grain for public supply on the basis of a special license.

Import Turnover Tax: Wheat, spelt, rye, maslin, millet, buckwheat, barley, oats, corn—10% ad valorem; milled products of the above grains—15% ad valorem.

IRELAND (OR EIRE)

Wheat ..... Free
Wheat flour, under permit, and bran.. *Free
*May be imported only under permit.

ITALY

Since the armistice with Italy, the following products have been imported on chiefly Italian government account and are exempt from duty except for bran. Imports are subject to ministerial import license. The duties given do not apply on wheat and wheat flour. Neither does the import license fee which is 0.50% on landed value of all goods. Wheat, 30% (ad valorem in paper lire); wheat flour, 35%; bran, 11%. In addition there is a mark-up of 15% of the average landed cost, duty paid, of wheat imported during the previous crop year from territories of the Contracting Parties to the General Agreement on Tariffs and Trade (including the U.S.). This mark-up, which brings the duty to 49.5%, will be in effect only so long as the Italian government purchases its wheat through state-controlled agencies. The wheat flour rate is effective through July 31, 1951, after which date it may be increased to 60%.

LUXEMBURG

(See Belgium-Netherlands-Luxemburg)

NETHERLANDS

(See Belgium-Netherlands-Luxemburg)

NORWAY

	Duty in crowns
Wheat and oat flour, wheat and bran	Free

The importation of wheat, rye, barley and oats and products thereof is controlled by a government monopoly.

POLAND

Collection of import duties has been suspended pending the institution of a new tariff. Almost all imports are subject to import licensing, for which license a fee is collected. The fee varies according to the commodity to be imported and its end use. No fee is charged for certain capital goods and certain raw materials, whereas the fee for non-essentials and luxury goods would be very high if such license would be granted at all.

Though the collection of customs duties is suspended, the imposition of import license fees and certain other taxes has the effect of customs duties. Complete information is not available regarding all taxes. Cereals and cereal products imported by undertakings or establishments controlled by the Central Board of the Foodstuffs Industry are understood to be subject to a turnover tax of 5%. There is also a customs manipulation fee assessed per 100 kilograms, gross, as follows: cereals, 20 zlotys; flours, groats, malt, rice and starch, 200 zlotys.

PORTUGAL

Wheat and wheat flour may be imported only by authority of special decrees, which also fix the rates of duty. Bran, gross weight 0.006 gold escudos a kilo.

Duties are paid in paper escudos at the rate of 24.45 paper escudos to one gold escudo.

Surtax—60% of duty. Imports subject to permit.

RUMANIA

The revised Rumanian tariff schedule of January, 1949, shows the following rates:

Item—	Lei	Turnover tax ad valorem Industrial	Commercial
Wheat, spelt	501.00	14	14
Corn	86.00	24	9
Barley	94.00	24	24
Oats	92.00	24	24
Rye	465.00	14	14
Millet	149.00	24	24
Wheat flour	1,073.00	*1.54	*1.90
Flour other than wheat	935.00	20	23

*In Lei per kilo.

All imports are subject to licensing. Foreign trade on grain is state controlled.

SPAIN

Wheat, 15.40 (gold pesetas); wheat flour, 23.10; flour of other cereals, 9.90. Imports are subject to permit. Surtax, all items, 40% of duty.

SWEDEN

Wheat flour, rye flour, etc., 6.50 (crowns); wheat, rye, barley, 3.70; bran, free. Imports of wheat and rye and their milled products are under government controlled monopoly.

SWITZERLAND

	Francs
Wheat and rye	3.00
Grain (except corn)	0.60
Corn	0.50
Cereals, pearled, hulled, cleaned or crushed, groats and semolina, except oats	4.50
Oats, hulled, cleaned or crushed	5.00
Flour, packages over 5 kilos	4.50
Flour, packages up to 5 kilos	40.00
Bran	0.30

The following supplementary duties stated in francs per 100 kilos are also levied: Oats, worked up, 4; barley, cleaned, 20; other cereals, worked up, 8; oatmeal, 4; barley meal and meal of cereals, 8. Barley and other cereals and pulses, used in the preparation of brewing malt or beer, are subject to an additional duty of 12.20 francs per 100 kilos gross, and malt when used in the manufacture of beer is subject to an additional duty of 16.50 francs per 100 kilos gross.

Importation of flour is a government

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monopoly and is subject to an additional duty of 25 francs per 100 kilos gross. Wheat and other cereals require an import permit.

Under the United States-Switzerland reciprocal trade agreement, the United States was granted an annual quota of 118,000 metric tons of wheat.

License tax—Cereals, and flour of corn and rice in containers of over 5 kilos each, 0.30 francs per metric ton.

TURKEY

	Turkish paper pounds gross weight
Wheat, all kinds	16.17
Wheat flour	24.38
Bran	4.11

Surtax, 15% of import duty.

Transaction tax, 15% for wheat and bran; 12.5% for wheat flour.

UNITED KINGDOM

	General	British preferential
Wheat	Free	Free
Wheat flour and bran, ad valorem	10%	Free

Imports are subject to license.

(U. S. S. R.) RUSSIA

Wheat, other grains and bran ..... Free
Flour, ad valorem 20%

Trade in Russia is a government monopoly.

The 1939 tariff schedule is officially confirmed as being in effect.

YUGOSLAVIA

No recent tariff information is available. U.S. trade with Yugoslavia is being conducted in accordance with current U.S. export control regulations.

North America

Rates of duty given in 100 kilos (220.46 lb.) unless otherwise specified.

BRITISH HONDURAS

	Duty in dollars General	Duty in dollars Preferential (Br. Emp.)
Wheat, ad valorem	25%	15%
Flour, 100 lb.	0.38	0.13
Bran, ad valorem	25%	15%
Bran (for dairy farming)	10%	Free

Bran, 1% ad valorem surtax.

Import permits are required for all imports.

CANADA

	Duty in dollars—British preferential	Most-favored-Nation	General
Wheat flour and semolina, per bbl. (196 lb.)	Free	.50	1.35
Wheat, per bu. (60 lb.)	Free	.12	.30
Millfeed	15%	20%	25%
Barley, n.o.p., per bu.	Free	.07½	.25
Indian corn, per bu.	Free	.08	.20
Oats, per bu.	Free	.04	.16
Rye, per bu.	Free	.06	.15

The Most-Favored-Nation Tariff rates apply to importations from the United States under treaty regulations.

The British Preferential Tariff rates apply to importations from British Empire countries under the British Preferential Tariff Regulations.

The above products are exempt from the consumption or sales tax.

Effective Aug. 21, 1950, it became unnecessary for permit applications to be made directly to the Canadian Wheat Board for the importing of U.S. wheat, oats and barley whether in transit or for storage in elevators in eastern Canada.

When application is made to the Board of Grain Commissioners for space for U.S. wheat, oats and barley, and if permission is granted, an import permit as required by the Canadian Wheat Board Act and regulations will be automatically provided and the applicant given the permit number at the time approval of space is given by the Board of Grain Commissioners.

It will still be necessary to apply directly to the Canadian Wheat Board for permission to import wheat, oats and barley or their products for consumption in Canada.

COSTA RICA

Official exchange rates: Buying (5.60 colones equals $1); selling (5.67 colones equals $1).

	Colones
Wheat	*Free
Wheat flour, best grade	16.00
Wheat flour, inferior grades	16.00
Whole wheat flour	16.00
Bran	3.00

*of duties and taxes.

Wheat flour, as a Trade Agreement item, is exempt from all customs surtaxes but subject to a consumption tax of 0.10 colon gross kilo; wheat and bran are subject to various additional taxes totaling 0.05 colon gross kilo, plus 2% of the f.a.s. value plus, on wheat, the consumption tax of 0.10 colon gross kilo.

A certificate of sanitation (analysis) and a certificate of origin are required for shipments of wheat flour, and these documents must be legalized by a Costa Rican Consul in the U.S.

The import duty rates on "wheat flour best grade" and "whole wheat flour," under the U.S.-Costa Rica reciprocal trade agreement cannot be increased above 17.95 colones 100 kilos.

GUATEMALA

	Quetzales
Wheat (gross weight)	2.00
Wheat flour (gross weight)	3.00
Bran for feed	Free

Guatemalan importers of flour must register each brand name with the Department of Public Health, presenting a certificate signed by the miller and a responsible public health official of the country (city or state) of origin, and certified by a Guatemalan Consul, that the product is sold and consumed without restriction in the country of origin. An analysis and sample must also accompany the registration.

The duty on wheat and wheat flour is "bound" by the U.S.-Guatemala reciprocal trade agreement.

HONDURAS

Wheat flour (gross weight), 12 (lempiras); bran, free; wheat (gross weight), 20.

Various customs surtaxes and fees in connection with importation total as follows on these products:

Wheat—9% ad valorem plus 7 lempiras 100 kilos.

Flour—8% ad valorem plus 2.20 lempiras 100 kilos.

Bran—9% ad valorem plus 7.50 lempiras 100 kilos.

The duty on wheat flour is "bound" by the U.S.-Honduras reciprocal trade agreement.

MEXICO

Duty in Mexican pesos

Dutiable Unit—Specific + ad valorem.

Flour, including immediate containers, legal kilo	0.10	35%
Wheat, gross kilo	0.06	20%
Bran, gross kilo	0.01	10%
Corn, gross kilo*	Free	1%

*Sacks and bags are dutiable separately.

There is a surtax of 3% of the duty on all dutiable articles by freight or express.

Wheat flour, legal kilo, 1.15 (official valuation pesos); wheat, gross kilo, 0.75; bran, gross kilo, 0.80; corn, gross kilo, 0.70.

The above duty rates apply to the official valuations (above). However, if the invoice value is higher than the official valuation, the rate applies on the higher valuation.

Packaged foodstuffs must be registered with the Mexican Department of Public Health before importation.

A phyto-sanitary certificate issued by the country of origin is required for importation of wheat into Mexico. Mexican import permits required for importation of wheat and wheat flour.

NICARAGUA

Wheat (net weight), 0.69 (gold cordobas); wheat flour (net weight), 2.8875; bran (net weight), 0.69.

There is a tax of 10c per package on all imports, plus 10c per 46 kilos or fraction thereof, up to a maximum 1 cordoba on each imported package.

Duties are paid in paper cordobas at 5 paper to 1 gold cordoba. 1 gold cordoba equals $1 U.S. Certificate of origin is required for wheat flour. Basic tax of 5% is assessed on all sales of foreign exchange. There is a hospital and improvement tax of 3¢ per package on each package imported regardless of size or weight.

The duty on wheat flour is bound by the U.S.-Nicaragua Reciprocal Trade Agreement and by the General Agreement on Tariffs and Trade, when Nicaragua shall ratify this Agreement.

PANAMA

Wheat (gross weight), 1.50 (balboas 100 gross kilos); flour, a kilo (gross weight), 1.00; wheat bran, free; corn bran (gross weight), 3.00; mixed bran with corn, 1.00; bran not specified, free; seeds for cereals (rice, corn, etc.), free.

A consular duty of 5% is assessed on the f.o.b. ports-of-exit value of dutiable goods. The consular duty on duty-free items is 3%.

ST. PIERRE AND MIQUELON (FRENCH)

Wheat, free; wheat flour, gross weight, free; other flour, gross weight, free; bran, free.

These products are subject to import permit.

EL SALVADOR

Wheat, gross weight, 5 (U.S. dollars); wheat flour, superfine, gross weight, 9; bran (gross weight), 10.40.

Duties are paid in colones at the rate of 2.50 colones to $1. Duties include all charges and surtaxes.

The duty on wheat is "bound" against increase by the U.S.-Salvadorean trade agreement.

UNITED STATES

Wheat, bu., 60 lb.	$0.21
Wheat flour, 100 lb.	.52
Semolina, 100 lb.	.52
Corn, bu., 56 lb.	*.25
Cornmeal, and flour, 100 lb.	.50
Oats, hulled or unhulled, bu., 32 lb.	.04
Oatmeal, rolled oats, etc., 100 lb.	‡10%
Rye, bu., 56 lb.	.06
Rye flour and meal, 100 lb.	.30
Barley, hulled or unhulled, bu., 48 lb.	.07½
Barley malt, 100 lb.	.30
Pearl barley, lb.	.00½
Buckwheat, hulled or unhulled, 100 lb.	.10
Buckwheat flour, lb.	.002
Macaroni, vermicelli, etc., lb.	.01½
Macaroni, vermicelli, etc., containing eggs or egg products	.02
Oat and barley hulls, etc., 100 lb.	.02½
Flaxseed, bu., 56 lb.	.50
Linseed oil, lb.	.045
	†Ad valorem
Bran, shorts, etc.	2½%
Unground screenings, etc	2½%
Ground screenings	2½%
Cereal breakfast foods, etc.	10%
Biscuits, cakes, etc.	‡10%
Wheat, unfit for human consumption	5%
Bread (yeast)	Free of duty

*Corn which is the product of and imported from Cuba is dutiable at the rate of 10c per bu of 56 lbs under paragraph 724, Tariff Act of 1930, as modified pursuant to the Cuban Trade Agreement.

†Ad valorem rates apply to the entered or appraised value, whichever is higher. The appraised value is ascertained under section 402 of the Tariff Act of 1930 as amended, in order defined, if such values exist, at foreign or export value, whichever is higher, at United States value, or at cost of production.

‡Plus an additional sugar tax (I. R. C., sec. 3500 (3)), which is 0.5144c per lb of the total sugars therein on all articles composed in chief value of manufactured sugar.

‡10% ad valorem, but not less than 40c nor more than 80c per 100 lb.

In a Presidential Proclamation published in T. D. 50650 it is provided that the rates proclaimed pursuant to trade agreements shall apply to the products of all countries, subject to certain exceptions and conditions.

British West Indies

Rates of duty are in sterling, per 100 lb. unless otherwise specified; first duty is general; second is British preferential.

ANTIGUA

Wheat, 1s 6d (general), 1s (British preferential); wheat flour, bbl. (196 lb.), 9s, 7s; bran, 2s, 1s 4d. Surtax, 30% of the duty on all imports except wheat flour, on which it is 10% of the duty. Trade tax of ⅛ of 1% ad valorem. Package tax of 1d per cu. ft. or part thereof. These products require an import permit.

BAHAMAS

Wheat, 1s (general), 6d (British preferential); wheat flour, bbl. (196 lb.) 2s, free; bran, 1s, 6d. There is a surtax of 5% ad valorem on wheat. These products require an import permit.

BARBADOS

Wheat, 6d (general), free (British preferential); wheat flour, bbl. (196 lb.): (1) whole meal, 2s, free; (2) other than whole meal, 5s 9d, 3s 9d; bran, 1s 2d, 7d. Surtax on imports, 20% of the duty.
Package tax—
Flour, 6d per 196 lb.; bran, 6d per 80 lb.; wheat, 6d per package.
These products require an import permit.

BERMUDA

British Preferential Tariff
Wheat, 100 lb., free (specific); wheat flour, 98 lb., 9d; bran, 100 lb., free.

General Tariff

Wheat, 100 lb., free (specific); wheat flour, 98 lb., 9d, 2½% (ad valorem); bran, 100 lb., free. Import permit is required.

DOMINICA

Wheat, 5s (general), 1s 8d (British preferential); wheat flour, bbl. (196 lb.), 12s 6d, 8s 4d; bran, 4s 2d, 2s 6d.

Trade tax, ¾ of 1% ad valorem.

There is also a surtax of 25% ad valorem on bran from all sources.

These products require an import permit.

GRENADA

Wheat, 1s 6d (general), 1s (British preferential); wheat flour, bbl. (196 lb.), 7s 6d, 5s; bran, 8d, free.

There is a surtax of 10% of the duty.

These products require an import permit.

JAMAICA

Wheat, 4d (general), 3d (British preferential); wheat flour, bbl. (196 lb.) 12s, 9s; bran, both free.

Tonnage tax: 6d cwt on flour. On bran and wheat, 6d on packages not exceeding ½ cwt.; over ½ cwt. but not over 1 cwt, 1s; over 1 cwt. but not over 4 cwt, 2s; exceeding 4 cwt., 2s 6d, plus 6d for each additional cwt. and part thereof. These products require an import permit.

MONTSERRAT

Wheat, 1s 6d (general), 1s (British preferential); wheat flour, bbl. (196 lb.), 9s, 7s; bran, 2s, 1s 4d.

There is a surtax of 10% of the duty on wheat flour; 25% of the duty on wheat and bran. These products require an import permit.

ST. CHRISTOPHER AND NEVIS

Wheat, 1s 6d (general), 1s (British preferential); wheat flour, bbl. (196 lb.), 9s, 7s; bran, 2s, 1s 4d.

Surtax of 12½% of duty.

These products require an import permit.

ST. LUCIA

Wheat, 1s 6d (general), 1s (British preferential); wheat flour, bbl. (196 lb.), 9s, 6s; bran 3d, free. There is a surtax of 25% of the duty on wheat only. These products require an import permit.

ST. VINCENT

Wheat, 1s 6d (general), 1s (British preferential); wheat flour, bbl. (196 lb.), 7s 6d, 5s; bran, 1s 6d, 1s.

There is a surtax of 10% of the duty on wheat and bran.

These products require an import permit.

TRINIDAD AND TOBAGO

(In Trinidad Dollars)

Wheat, 0.60 (general), 0.30 (British preferential); wheat flour, bbl. (196 lb.), 0.48, free; bran, 0.30, 0.15. These products require an import permit.

TURKS AND CAICOS ISLANDS

Wheat, 2s (general), 1s 6d (British preferential); wheat flour, bbl. (196 lb.), 4s 6d, 3s; bran, 1s 6d, 1s.

Package tax for flour is 6d cwt. or fraction; for bran and wheat, same as in Jamaica.

Tonnage tax on flour and bran, 6d cwt.; wheat, 6d on packages not exceeding ½ cwt, over ½ cwt but not over 1 cwt., 1s; over 1 cwt. but not over 4 cwt., 2s; over 4 cwt., 2s 6d, plus 6d for each additional cwt. or part thereof.

These products require an import permit.

VIRGIN ISLANDS

Wheat, 1s (general), 8d (British preferential); wheat flour, bbl. (196 lb.), in quantities of 50 lb. or more, 4s, 2s 8d; wheat flour, lb., in quantities of less than 50 lb., ½d, ¼d; bran, 2s 3d, 1s 6d.

There is a surtax of 2% of duty on all imports.

These products require an import permit.

West Indies

CUBA

Rates in U.S. dollars per 100 kilos (220.46 lb.).

Wheat, gross weight, 16¢ (general), 16¢ (U.S. preferential); wheat flour, gross weight, 83¢, 63¢; bran, gross weight, 50¢, 40¢.

Plus surtax of 3% of duty on bran.

CURACAO (NETHERLAND WEST INDIES)

Florins per 90 kilos (198.41 lb.).

Wheat, ad valorem (invoice valuation), 3%; wheat flour, 0.50; bran for feed, free.

Surtax on all imports is 10% of the duty.

DOMINICAN REPUBLIC

U.S. dollars 100 kilos (220.46 lb.).

Wheat and bran, free; wheat flour, vita-

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minized or not, net weight, $6; semola, net weight, $3.50. In addition, there is an internal tax of $2 100 kilos net on wheat flour. Additional taxes. Import license tax 9.9% ad val.; wharfage tax, 25¢ each 50 gross kilos (if less than 50 gross kilos, exempt); document taxes, 1% and 6% ad valorem, and a $4 clearance fee on all imports.

FRENCH WEST INDIES
GUADELOUPE

Wheat, *30% ad val.; wheat flour, exempt; bran of all grains, exempt.

Transaction tax is 1% of duty and tax paid value. Production tax on wheat flour not destined to bread-making, 2.75% of duty-paid value; on bran, 2.75%.

Octroi tax on wheat, 2% ad valorem; on bran, 2% ad valorem.

Importation of these products is subject to permit.

*Temporarily exempted from duty.

MARTINIQUE

Wheat, *30% (ad val.); wheat flour at rate of extraction, 5%; corn, 10%; corn meal, *30%; bran of all grains, exempt.

Transaction tax is 1% of the duty and tax paid value.

Production tax on wheat flour not destined to bread-making, 2.75% of duty-paid value; on bran, 2.75%.

Octroi tax on wheat and flour is 3 francs 100 kilos net and 2% on bran.

Importation of these products is subject to permit.

*Temporarily exempted from duty.

HAITI

Duties in gourdes net kilo.

Wheat, 0.11; wheat flour, 0.30; bran, 0.06.

Surtax on all imports is 20% of duty.

Special surtax of 3% assessed on combined total of c.i.f. value, duty, surtaxes, handling and stamp charges.

South America

Rates 100 kilos (220.46 lb.) unless otherwise specified.

ARGENTINA

Based on the new tariff, effective Nov. 15, 1950, customs duties are calculated on the basis of c.i.f. value (Buenos Aires).

Manioc, exempt; flour*, 45%, flour†, 45%; flour‡, 45%; flours, prepared, for making pastries, 45%.

*Of wheat or corn, in sacks or barrels, including the weight of the container.

†Of all other edible materials, of whatever quality or form, in packages or tins, including tapioca, sago, oatmeal, and other similar preparations, including the weight of the container.

‡Of all other edible materials, in boxes or bags, or in other containers, including the weight of the container.

BOLIVIA

Wheat flour, gross weight, 35 (bolivianos); wheat, gross weight, 12.50; for sowing, free under permit; bran, gross weight, 1.50. There is a surtax of 200% of the duty on bran. Flour, domestic and foreign, is subject to a tax of 2 bolivianos per quintal of 46 kilos. Imports are subject to permit.

BRAZIL

Wheat,† gross weight, 86.94 (cruzeiros*, minimum rates, ton); wheat, cracked or half milled (legal), 217.00; wheat flour,‡ legal weight, 217.00; bran and middlings, gross weight, 174.02.

*There is a surtax of 10% of the duty.

†There is an additional surtax of 0.60 cruzeiro 44 kilos of flour theoretically to be extracted from imported wheat, at a fixed extraction ratio of 70%.

‡There is an additional surtax of 0.60 cruzeiro 44-kilo bag of imported flour.

The surtax of 2% of c.i.f. value, port of entry, applying to most imports, is charged on wheat flour, bran and middlings, but not on wheat.

BRITISH GUIANA

Duty in dollars of British Guiana (4s 2d). Wheat flour, bbl. (196 lb.), $1.39 (*general), $1 (British preferential), (the rate to Canadian flour is 91¢); wheat, 100 lb., 50¢, 25¢; bran, 50¢, 25¢.

There is a surtax of 25% of the duty on flour, and of 30% of the duty on wheat and bran.

Bill of entry tax is 3% ad valorem. *Drawback on bill of entry tax and customs duty paid to the extent of the amount of duty calculated at the British Preferential Tariff Rate on imports of flour.

An import license is required for these products.

CHILE

Chilean gold pesos

Wheat flour ..60.00 per gross metric quintal
Bran ..... 13.50 per gross metric quintal

Wheat—When the c.i.f. value of the wheat is 70 pesos or more 100 kilos, it is free of duty; when its price is 69 pesos, the import duty is 0.75 gold peso 100 kilos, and this rate of duty is increased 0.75 peso for each peso of decline in price.

Surtax is 0.25 gold peso 100 kilos or fraction.

General import-sales tax is 20% of the duty-paid value on wheat and bran, and 3% on wheat flour.

All imports are subject to permit.

COLOMBIA

Wheat, spelt and meslin, *0.06 (Colombian pesos, gross kilo); cereal flours of wheat, spelt and meslin, *0.24; bran, sharps and other residues from screenings, milling and husking of grain, free.

*25% ad valorem.

The Colombian importer must obtain an import permit before his order is placed abroad.

ECUADOR

	Sucres
Flour, gross weight	15.00
Flour, self-rising (legal wt.)	200.00
Wheat, gross weight	20.00
Bran, gross weight	5.00

A certificate of analysis is required for imported flour.

Surtaxes: 7% of duty, 7% of declared value, and 1½% ad val. (f.o.b.).

General sales tax is 5% ad val. (f.o.b.)

All imports require import permits.

Wheat is exempt from all consular fees, import taxes, sales taxes and port charges.

NETHERLAND GUIANA (SURINAM)

	Florins
Flour, when packed in packages of 1 kilo or less, ad valorem (c.i.f.)...	16%
Flour, otherwise packed	.025
Wheat and other grain	16%
Millfeed	Free

There is a surtax of 35% of the duties on all imports.

Permit restrictions and exchange control apply to imports into Netherland Guiana.

PARAGUAY

	Guaranis
Wheat, gross weight	2.42
Wheat flour, gross weight	5.03
Wheat flour, combined with yeast and	

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the like for puddings, food preparations and the like, kilo 0.29
Corn meal, gross weight 7.64
Bran, gross weight 0.95

Surtax is 11% ad valorem, except on wheat and wheat flour, 6%.

PERU

Wheat flour, gross weight, 5.00 (soles); wheat, gross weight, 1.50; bran, gross weight, 2.00.

Surtaxes—Wheat and wheat flour: 7.666% c.i.f. value, plus 2% f.o.b. value; bran: 11.666% c.i.f. value, plus 2% f.o.b. value. (All existing national and regional customs surtaxes on imports (including the consular fee, National Education Tax, Santa Tax, etc.) were abolished by a decree law, July 10, 1950, and were replaced by a single new tax to be collected at a uniform rate in all ports. This unified tax system has since been modified in conjunction with the establishment of an additional tax to be collected separately for a special navy fund. (C.i.f. percentages represent the modified unified tax; f.o.b. percentages represent tax for navy fund.) Additional regional taxes are collected, varying according to locality. Forty thousand metric tons wheat a year from Chile allowed duty-free entry.

URUGUAY

Wheat flour, gross weight, 5.45 (pesos); wheat, 1.35; bran, gross weight, 2.03. There is a surtax of 9% ad valorem, based on the c.i.f. value of wheat.

VENEZUELA

Wheat in grain, 100 gross kilos, 2 (bolivars); wheat flour, 100 gross kilos, 4; bran, 100 gross kilos, 4.

Africa

ALGERIA

Same rates of duty as apply on similar products imported into France. Duties paid in francs.

The import duties, suspended since March 29, 1945, are still suspended on the following: Cereal flours, groats, semolinas, cereal grains, cleaned or husked, crushed grains, and bread-making grains, germs, flakes, except oat flakes.

A production tax of 10% ad valorem applies to imported wheat, wheat flour and bran.

BELGIAN CONGO

Rice, in grain, 25% (ad valorem); rice flour, 25%; other cereals in the grain or flour and all other milling products not specifically mentioned are free.

EGYPT

Wheat, free; wheat flour, 100 gross kilo, 450 milliemes; bran, 100 gross kilo, 100 milliemes. In addition to the import duty, there is a quay tax of one tenth of the duty, and an additional ad valorem duty of 7% of c.i.f. value. Municipal tax levied on total amounts paid as import duty, ad valorem duty and excise, on general merchandise: Alexandria, 1¼%; Port Said, 2%; Suez, 3%.

MADAGASCAR

	ad valorem
Wheat, spelt and meslin and their flours	10%
Wheat bran and other residues, except germs	Exempt
Other farinaceous edible products	15%

The importation of wheat and flour is subject to permit.

Import duties have been temporarily suspended.

MOROCCO

Wheat, wheat flour, bran, ad valorem 12½%. In addition to the ad valorem import duty, there is a "gate tax" of 0.03 franc gross kilo on wheat imported into French Morocco. In Spanish Morocco, in addition to the ad valorem import duty, there is a discretionary consumption tax ranging from 0 to 0.12 peseta a kilo on imported wheat and from 0 to 0.20 peseta a kilo on imported flour. In French Morocco, there is a stamp tax of 1% of the total customs duties. In Spanish Morocco, there is a special consumption tax of 1% ad valorem on flour, except in Sanjurjo, where it is free of this tax. Ad valorem rates are based on wholesale cash value of goods delivered at the custom house.

TUNISIA

Wheat flour, spelt and meslin, at the extraction rate of: 80% and more, 70% (minimum rate, ad valorem); 60% inclusive to

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Reference: HDL. MY. H. ALBERT DE BARY & CO., N.V.

80% exclusive, 70%; less than 60%, 30%; wheat, hard, soft and meslin, 30%; wheat groats, semolina, grains, cleaned or husked, crushed grains and bread-making grains, germs, flakes, 30%; wheat bran, 5%. Statistical tax—15 francs 100 kilos of soft or hard wheat. Customs formality tax—20 francs 1,000 kilos, gross or fraction thereof, with a minimum rate of 1% ad valorem. Import control tax—wheat, 3 francs; wheat flour, 4 francs 05; wheat semolina, 4 francs 50. Imports are subject to permit. Trade in grain is on government to government basis.

UNION OF SOUTH AFRICA

Wheat, 100 lb., 2s 8d; wheat, ground or otherwise prepared, 5s 8d; wheat bran, maximum 1s 2d, minimum 1s. British preference in the regular and special duties on these items was eliminated under the General Agreement on Tariffs and Trade. In addition to the general tariffs stated above there is a special customs duty per cental equal to the difference between 11s 3d for wheat and 18s 6d for wheat flour and meal, and the cost per cental to the importer at the port of importation (c.i.f., including customs duty); provided, the cost of the product per cental to the importer, free on board at port of shipment, shall be taken to be a sum not greater than the ordinary market price for export per cental at time of purchase, expressed in Union currency, of similar goods free on board at port of shipment.

Asia and Australia

AUSTRALIA

Australian pounds per 100 lb.—Wheat, 2s (general), free (British preferential); wheat flour, 2s 6d, free; bran, 1s 3d, 9d. The preferential rates apply to imports from the U.K. and New Zealand, and on bran only from Canada.

There is also a primage duty of 10% ad valorem on such imports with two exceptions. New Zealand imports are exempt from primage and bran is only subject to a 5% ad valorem primage duty under the British Preferential.

BRITISH MALAYA

Wheat, flour and bran ..... Free

Exchange to pay for imports from the U. S. is granted only in the case of essential goods not procurable within a reasonable length of time from British Empire sources.

MAINLAND CHINA

U.S. export and foreign assets controls virtually preclude the possibility of shipments of wheat, flour and bran to the Communist-controlled mainland of China.

TAIWAN (FORMOSA)

Dutiable goods imported into Taiwan are subject to the duty rates contained in the Customs Import Tariff of the Republic of China as revised in 1950. Rates of duty applicable to imports of wheat, flour and bran are as follows (ad valorem basis): Wheat, 15%; flour, 15%; bran, 15%.

Specified imports into Taiwan are, in addition to the import duty, subject to the collection of the consolidated tax. In this instance, the tax is applicable only to imports of flour, upon which the rate is 2.5% ad valorem. Additionally, it is believed that port charges, generally not exceeding 5% of the duty, are still being collected.

FRENCH INDOCHINA

Description of products:	Piasters—Rate of import duty ad val.	Piasters—Internal tax ad val.
Cereals—		
Wheat, spelt and meslin	15	Free
Flour of—		
Wheat	12	4
Rye, barley, oats, rice, maize and others	15	4
Groats, semolina, husked or pearled cereal grains, crushed grains and grist, flakes:		
From any kind of cereal	15	4
Bran, sharps and other residue of screening, milling and husking of cereal and of cereal grains:		
From any kind of cereal	5	Free

Assessment of customs duty is on the price c.i.f. port of duty.

In addition, there is assessed a statistical tax of 2 piasters per parcel, case, or other container and/or 1,000 kilos or cubic meters.

The exchange ratio between the piaster and other currencies is based on the Paris free market rate, presently (Dec. 4, 1949) fixed at 350 francs to the U.S. dollar, so that one piaster equals U.S. $0.04857.

Generally, dollar exchange is not granted for purchases in the U.S. except in the case of essential goods not procurable from France or other French Union sources.

HONG KONG

No import duty is collected on imports of wheat, flour or bran into the British Crown Colony of Hong Kong. No surtaxes or port dues are collected.

INDIA

Both wheat and flour are free of duty until further notice. Bran, ad valorem, 3%.

INDONESIA

	Ad valorem, c.i.f., %
Wheat, corn, rye, barley and buckwheat	5
Wheat flour, wheat meal, in bags	15
Flour not of specified grains	15
Bran	5

Note: These duties include the surtax.

Importers are not permitted to place orders abroad until the exchange control authorities have authorized payment to be made.

ISRAEL

Israel pound (1,000 prutoth) follows pound sterling. Import duties on wheat and flour vary according to value fixed periodically by director of customs. Wheat valued at 8,000 prutoth ton or over is assessed 1,000 prutoth ton import duty. From this maximum, the duty rate is increased 250 prutoth for each decrease of 250 prutoth in valuation to a minimum valuation of 5,250 prutoth, when the duty is 4,000 prutoth. The value of wheat for duty purposes is determined by the director of customs. Flour, semolina and crushed or ground wheat valued at 11,500 prutoth ton or over is assessed 2,000 prutoth ton import duty. From this maximum valuation, the rate of duty is increased 250 prutoth for each decrease of 250 prutoth in valuation to a minimum valuation of 6,250 prutoth, when the duty is 7,500 prutoth. The director of customs has authority to determine the value of these products for duty purposes. Rye flour valued at 8,000 prutoth ton or over is assessed 3,500 prutoth ton import duty. From this maximum valuation, the import duty is increased 250 prutoth for each decrease of 250 prutoth in valuation to a minimum valuation of 5,750 prutoth, when the import duty is 6,000 prutoth. Bran, free. Imports are subject to import license.

JAPAN

	*Duty per 100 kin
Wheat	2.50 yen
Wheat flour	4.30 yen
Wheat bran	Free

*100 kin equals 132.28 pounds.

Goods imported into Japan for use by the Occupation forces and goods imported by Licensed Agencies for Relief in Asia (LARA), Cooperative Agencies for Remittances to Europe and the East (CARE), and other relief parcels are not subject to duty. Duties on goods imported for other purposes, as stated in the Import Tariff of Japan, 1947, are given below. It is noted, however, that the Japanese Ministry of International Trade and Industry as the sole Japanese importer of all commercial shipments at present pays the import duty. Law No. 188 promulgated by the Japanese Government on Dec. 16, 1947, providing for the duty free import of wheat and wheat flour until Dec. 31, 1948, has been extended to permit the import of wheat and wheat flour duty free until Dec. 31, 1949. It is possible that this provision of duty free import of wheat and wheat flour may be further extended.

LEBANON

Wheat, spelt, meslin and groats, free; flour from hard wheat and from soft wheat, free; bran, free. Other charges on imported goods, whether subject to import duty or not, are as follows: Municipal tax of 1.5%, ad valorem; landing charges (payable to steamship agencies) of 6 to 14 Lebanese pounds metric ton; harbor and handling charges (payable to port company) of 6 to 12 piasters 100 kilos, and a transit tax of 1.5% ad valorem. All imports are subject to license, and the import license application fee is 12 Lebanese pounds for each license without regard to the quantity of goods it covers. The Lebanese pound, divided into 100 piasters, is equal to about $0.4528 in U.S. currency terms when com-

ANTH. JOHANSEN & CO.

Established 1883

Flour, Grain and Feed Agents

Skippergt. 7 OSLO, NORWAY

Cable Address: "Johnny"

OMAR JORDAN

Formerly
A/S Mercator
Agent

GRAIN, FLOUR, FEEDINGSTUFFS

Oslo, Norway.

Cable Address: "CATOR," Oslo.

puted at the official Lebanese selling rate of exchange.

NEW ZEALAND

Bran or Pollard.—Free.

Wheat.—When the current domestic value at the port of export to New Zealand is 5s per bu of 60 lbs, the duty shall be 3d per bu of 60 lbs, provided that—

(a) When the current domestic value at the port of export to New Zealand exceeds 5s per bu of 60 lbs, the rate of duty shall be decreased by ½d (halfpenny) per bu of 60 lbs for every ½d (halfpenny) or fraction of ½d (halfpenny) by which the said current domestic value exceeds 5s, and

(b) When the current domestic value at the port of export to New Zealand is less than 5s per bu of 60 lbs, the rate of duty shall be increased by ½d (halfpenny) per bu of 60 lbs for every ½d (halfpenny) or fraction of ½d (halfpenny) by which the said current domestic value is less than 5s.

Wheat Flour (including wheat meal and similar preparations of wheat)—(a) When the current domestic value at the port of export to New Zealand is £13 per ton of 2,000 lbs, the duty shall be £1 12s per ton of 2,000 lbs.

(b) When the current domestic value at the port of export to New Zealand exceeds £13 per ton of 2,000 lbs, the rate of duty shall be decreased by 1s per 2,000 lbs for every 1s or fraction of 1s by which the said current domestic value exceeds £13.

(c) When the current domestic value at the port of export to New Zealand is less than £13 per ton of 2,000 lbs, the rate of duty shall be increased by 1s per 2,000 lbs for every 1s or fraction of 1s by which the said current domestic value is less than £13.

(d) Where wheat flour, including wheat meal and similar preparations of wheat, is imported in packages weighing less than 150 lbs, the current domestic value thereof shall be determined as if such goods had been imported in packages weighing 150 lbs or such other standard weight as the minister may approve.

(e) Notwithstanding anything in the preceding paragraphs of this tariff item, the current domestic value of wheat flour, including wheat meal and similar preparations of wheat, shall not in any case be deemed to exceed the free-on-board (f.o.b.) export cash price thereof by more than £1 5s per ton of 2,000 lbs.

All imports are subject to import license, and wheat flour is prohibited from importation. At present, no licenses are being issued for wheat, wheat flour, bran or pollard.

PAKISTAN

Wheat is free of duty until further notice; wheat flour is free.

REPUBLIC OF THE PHILIPPINES

United States articles, ie., products of the U.S. which do not contain more than 20%, by value, of foreign materials, enter free of ordinary customs duties. Products which do not qualify as U.S. articles and imports originating in foreign countries other than the U.S. are subject to full Philippine tariffs. In the case of wheat, wheat flour and bran, the following rates of duty are provided in the Philippine Tariff Act of 1909, as amended: Wheat, in grain, 100 kilos gross weight, 25¢; wheat, in flour, 100 kilos gross weight, 47¢; bran, 5%, ad valorem. All imports of these products from whatever country are subject to a tax equal to 7% of the gross selling price in the Philippines, and payable by the importer.

SYRIA

Wheat, spelt, meslin and groats, free; flour, from hard wheat and from soft wheat, free; bran, free. Other charges on imported goods, whether subject to import duty or not, are as follows: Municipal tax of 1.5% ad valorem; landing charges (payable to steamship agencies) of 6 to 14 Syrian pounds metric ton; harbor and handling charges (payable to port company) of 6 to 12 piasters 100 kilos, and a transit tax of 1.5% ad valorem. All imports are subject to license and the import license application is 12 Syrian pounds for each license without regard to the quantity of goods it covers. The Syrian pound, divided into 100 piasters, is equal to about $0.4523 in U.S. currency terms when computed at the official Syrian selling rate of exchange.

THAILAND

Cereals in grains including grains crushed but not yet powdered into flour, brans and meals of cereals but excluding malt, 0.50 baht; flours, starches, edible or otherwise, 1.00 baht. Thailand has a system of multiple exchange rates. The official exchange rate, used almost exclusively for government imports, is 12.50 baht to U.S. $1.00. The free market rate, used for all other imports, is currently about 21.50 baht to U.S. $1.00.

Established 1899

Norenberg & Belsheim

Flour Specialists

OSLO, NORWAY

Cable Address: "COSMO" AND "MOBIL"

BRODR. JUSTESEN

COPENHAGEN, DENMARK

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Agents for:

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Established 1913

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Flour – Semolina – Grain – Feed

Working Denmark, Finland, Norway, Sweden

Cable Address: "FLORMEL," OSLO

Asbjörn P. Björnstad

Flour and Grain Agent

OSLO, NORWAY

Reference: "THE NORTHWESTERN MILLER" Cable Address: "ASBJORNSTAD" Oslo

INFORMATION ABOUT THE GRAIN TRADE

THE outbreak of fighting between United Nations troops and Communist forces in Korea became a major factor in grain markets during 1950. The atmosphere of war quickly influenced commodity price trends, and the basic grains, though still plentiful, were caught in the bullish tide. Markets constantly reflected the successes and setbacks of U.S. and other U.N. troops from the time the fighting started in June. Inflationary pressure built up by the war brought demands for domestic price controls by late summer, and while the threats and conversation about curbs at times cooled markets, the ultimate effect was an additional price stimulus. This developed because of the provision made in price control legislation that ceilings on farm crops could not be set below parity or pre-Korea levels, whichever was higher. Since grains generally were below levels, the prospect of controls pulled markets toward the prospective ceilings until a reaction set in early in 1951.

★ ★ ★

U.S. supplies of wheat at the start of 1950 totaled 908 million bushels, the largest stocks since 1943. Included were some 505 million bushels owned or controlled by the government because of price support operations. With exports moving at a much slower rate than in the previous few years, much concern was shown over the possibility of a huge, unwanted surplus. The late winter price decline which reflected this thinking was reversed by adverse crop reports from the Southwest. Drouth, winds and insects trimmed the production from earlier estimates, then a delay in planting of the spring wheat crop helped to steady prices. At the turn of the crop year a carryover of 417 million bushels remained. Exports in the year ending June 30 had totaled only 299 million bushels. The spring wheat crop, under constant threat of early frost, turned out fairly satisfactorily, and total U.S. output in 1950 again topped a billion bushels. Thus, there were plentiful supplies, although they were no longer considered burdensome because of the change in world conditions. Canada's 1950 crop, though large, included a high proportion of low-quality wheat because of extensive frost damage.

★ ★ ★

The first year of the International Wheat Agreement concluded in 1950, with the U.S. selling only about 70% of its 236-million-bushel quota. Export business lagged in the latter part of 1950, but in December export demand expanded sharply. However, because of the slow start and the physical limitations in moving exports, it appeared that the 1950-51 clearances would not reach more than 275 million bushels. Fulfillment of the 1950-51 IWA quota seemed certain, with only 35 million bushels left to be sold by March, 1951. The subsidized IWA exports were confined to flour as the quota approached completion.

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The government's price support program had a lesser role in price determination on the 1950 crop as higher market prices slowed the usual rush of producers to pledge their crops for loans. The government still held large quantities of grain through 1950, and while much of it was sold for export, little moved onto the domestic market. Early in 1951 restrictions also were placed on sales for export.

★ ★ ★

Feed grain markets were influenced to a certain extent by the same war, inflation and ceiling factors as wheat. Crops of all feed grains, except corn, were larger in 1950 than in 1949, and supplies were adequate for needs. Domestic disappearance of corn in the first quarter of the 1950-51 feeding year was at a slower rate than in the previous year. Stocks of corn Jan. 1, 1951, totaled 2,664 million bushels, 5% below the record supplies at the start of 1950.

Contract Grades of Principal Grains

The following information has been prepared by the Commodity Exchange Authority of the U. S. Department of Agriculture, as a means of easy reference to the deliverable grades of grain, flaxseed, soybeans and millfeeds that may be tendered on futures contracts on the various markets licensed under the Commodity Exchange Act.

At the present time futures trading is provided for in one or more of the commodities—wheat, corn, oats, rye, barley, flaxseed and millfeeds—on 12 "contract markets": Board of Trade of the City of Chicago, Chicago Open Board of Trade, Board of Trade of Kansas City, Mo., Memphis Merchants Exchange Clearing Assn., Milwaukee Grain Exchange, Minneapolis Grain Exchange, Seattle Grain Exchange (during 1950 there was no futures trading in barley, and all futures trading was dormant at the Duluth Board of Trade, Los Angeles Grain Exchange, Portland Grain Exchange, San Francisco Grain Exchange, Merchants' Exchange of St. Louis, although not officially suspended).

As a matter of convenience the grades of grain deliverable on Winnipeg Grain Exchange contracts are also listed, although trading on that market is not subject to the provisions of the Commodity Exchange Act. Futures trading in wheat on Winnipeg Grain Exchange was suspended Sept. 25, 1943.

Although trading in grain and flaxseed contracts may be conducted for delivery in each calendar month, it is largely confined to contracts calling for delivery in May, July, September and December, which are called the "major" futures.

Trading in millfeed contracts is conducted for delivery in each month throughout the year.

The units of trading in futures contracts for grain, flaxseed and soybeans on all markets included herein are lots of 5,000 bus (round lots) and 1,000 bus (job lots), or both, with these exceptions: the job lot unit of trade in oats and barley contracts at Chicago is 2,000 bus in order to successfully hedge carloads, and the unit of trading in contracts at Los Angeles and San Francisco is 100 tons.

The units of trading in millfeeds for future delivery are 120 tons in round lots and 30 tons in job lots.

Effective after May, 1938, by order of the Secretary of Agriculture under the Commodity Exchange Act dated Feb. 17, 1938, a period of seven business days is required during which contracts for future delivery in the current delivery month of wheat, corn, oats, rye, barley or flaxseed may be settled by delivery of the actual cash commodity after trading in such contracts has ceased.

Open Contracts

A futures contract is said to be "open" when it has been entered into but not yet fulfilled by delivery or otherwise offset. Total open contracts in any specified commodity, therefore, represent the contracts in each commodity which will have to be liquidated either before maturity by offset or a maturity by delivery.

The total of open contracts is obtained each business day by a tabulation of reports made by exchange clearing members under authority of the Commodity Exchange Act. Where there was trading in both round and job lots, the totals of open contracts include both types.

Chicago

Differentials.—Unless otherwise specified, contracts for the sale of wheat, corn, soy beans, oats, rye, barley and malting barley shall be deemed to call for "contract" wheat, corn, soybeans, oats, rye, barley and malting barley, respectively. Upon such contracts, sellers, at their option, may deliver all or part of the . . . grades, at the differentials indicated, provided that lots of grain of any one grade must conform to the minimum lot requirements of Rule 290. (Rule 291, Board of Trade of the City of Chicago.)

Lots.—On future delivery contracts calling for 5,000 bus of grain, or multiples thereof, delivery shall be made in lots equal to the minimum quantity . . . specified (5,000 bus). On future delivery contracts calling for odd lots of grain, delivery shall be made in lots of 1,000 bus, with the exception of oats and barley, which shall be in 2,000 bu lots or multiples thereof. Each lot of grain delivered must be described on the delivery notice, and may be made up of various amounts of grain of the various authorized grades situated in various warehouses, provided that no lot shall contain less than 1,000 bus of any one grade in any one warehouse, except in the case of oats and barley where the minimum in any one warehouse shall be 2,000 bus of any one grade. On the last business day of the month only, members having grain bought in odd lots and sold in 5,000-bu lots may deliver odd lots on a 5,000-bu lot contract by attaching the odd lot notices firmly together and endorsing the last notice. (Rule 290.)

Variation Allowed.—Deliveries of grain in store may vary not more than 1% from the quantity contracted for, provided however, that no lot in any one warehouse shall contain less than 1,000 bus of any one grade, except in the case of oats and barley where the minimum shall be 2,000 bus. (Rule 292.)

Grades.—A contract for the sale of grain for future delivery shall be performed on the basis of the grades officially promulgated by the Secretary of Agriculture as conforming to United States Standards at the time of the making of the contract. If no such United States grades shall have been officially promulgated, then such contract shall be performed on the basis of the grades established by the rules of the Division of Grain Inspection of the Department of Agriculture of the State of Illinois, in force at the time of the making of the contract. (Rule 287.)

Deliveries, except as otherwise provided, are made by registered warehouse receipts issued by warehouses which have been declared regular by the Board. The Board

by regulation may prescribe the conditions upon which warehouses may be declared regular, and the conditions upon which warehouse receipts issued by regular warehouses are deliverable. (Rule 281.) Deliveries may also be made in cars on track during the last three business days of the month under the conditions specified in rule 282. Regulation 1320 provides for regulation of warehouses and safeguarding the condition of grain in warehouses. Grain tendered for delivery must be insured against loss by fire for at least 85% of its value in accordance with rule 293.

WHEAT

Deliverable at premium, 1½¢ per bu.: No. 1 dark hard winter, No. 1 dark northern spring heavy.

Deliverable at premium, 1¢ per bu.: No. 1 hard winter, No. 1 red winter, No. 1 yellow hard winter, No. 1 northern spring heavy.

Deliverable at premium, ½¢ per bu.: No. 2 dark hard winter, No. 1 dark northern spring.

Deliverable at contract price: No. 2 hard winter, No. 2 red winter, No. 2 yellow hard winter, No. 1 northern spring.

BARLEY

Deliverable at contract price: No. 1 of Class 1, No. 2 of Class 1, No. 1 malting, No. 2 malting.

Deliverable at discount, 2¢ per bu.: No. 3 of Class 1. (Provided dockage shall not exceed 2%; allowance to be made by seller to buyer for dockage up to 2%.)

RYE

Deliverable at premium, 5¢ per bu.: No. 1 plump.

Deliverable at premium, 2½¢ per bu.: No. 2 plump.

Deliverable at premium, 1¢ per bu.: No. 1.

Deliverable at contract price: No. 2.

CORN

Deliverable at premium, ½¢ per bu.: No. 1 white, No. 1 yellow, No. 2 white, No. 2 yellow.

Deliverable at contract price: No. 1 mixed, No. 2 mixed.

Deliverable at discount, 2¢ per bu.: No. 3 white, No. 3 yellow.

Deliverable at discount, 2½¢ per bu.: No. 3 mixed.

SOYBEANS

Deliverable at contract price: No. 1 yellow, No. 2 yellow.

Deliverable at discount, 4¢ per bu.: No. 3 yellow.

OATS

Special red oats are deliverable at the premiums and discounts shown for white oats of the same numerical grade. Bright oats shall carry no additional premium or discount.

Deliverable at premium, 3½¢ per bu.: No. 1 extra heavy.

Deliverable at premium, 3¢ per bu.: No. 2 extra heavy.

Deliverable at premium, 2¢ per bu.: No. 1 heavy, No. 3 extra heavy.

Deliverable at premium, 1½¢ per bu.: No. 2 heavy.

Deliverable at premium, ½¢ per bu.: No. 1, No. 3 heavy.

Deliverable at contract price: No. 2.

Deliverable at discount, 1½¢ per bu.: No. 3 medium.

Deliverable at discount, 2½¢ per bu.: No. 3.

Chicago (Open Board)

Contracts for wheat, corn, oats, rye and soybeans are traded in on the Chicago Open Board and the grades of each which may be tendered on delivery are the same as for the Chicago Board of Trade, as provided in rule 516 of the Chicago Open Board of Trade, which follow:

Grade, Quality and Weight.—The grade, quality and weight of grain deliverable upon exchange contracts shall be determined according to the rules and regulations of the Board of Trade of the City of Chicago as they now exist, or as they may be modified hereafter. All such rules and regulations relative to grading, inspection, classification and weighing of grain and deliveries of other than contract grade at specified price differences, are hereby adopted and made applicable to contracts of members of this association. (Rule 114.)

Grain.—Wheat, corn, oats, rye, barley, flaxseed and soybeans. (Rule 14.)

Grades.—A contract for the sale of grain by grade shall be performed on the basis of the grades officially promulgated by the Secretary of Agriculture as conforming to the United States Standards at the time of making the contract. If no such grades have been officially promulgated, then such contract shall be performed on the basis of the grades established by the rules of the Division of Grain Inspection of the Department of the State of Illinois, in force at the time of the making of the contract. (Rule 515.)

Official U. S. Standards for soybeans as promulgated July 9, 1935, were made effective Sept. 3, 1935; revised, effective Sept. 1, 1941; amended, effective Sept. 1, 1942. Grade designations were not changed.

Unit of Delivery.—All deliveries of grain shall be in 1,000-bu. lots or multiples thereof except oats which shall be in 2,000- or 5,000-bu lots or multiples thereof but variations in quantity not in excess of 1% shall not vitiate tender or delivery, provided, however, that no lot in any one warehouse shall contain less than 1,000 bus of any one grade of wheat, corn, rye and soybeans or 2,000 or 5,000 bus of oats of any one grade. In all cases settlement shall be made on the basis of the exact quantity delivered. (Rule 508.) (See also Rule 402.)

Rules 501, 502, 513 and 514 cover date of delivery, mode of delivery, storage charges, and insurance.

Rules 504, 505, 506 and 507 provide for delivery notice, method of delivery, hours of delivery and delivery by offsetting purchase and sale.

Rules 509, 510, and 511 relate to failure to deliver, claims, and failure to accept delivery.

Duluth

DURUM WHEAT

Practically all transactions in wheat futures at Duluth are in durum wheat.

Deliverable at premium, 3c per bu: Nos. 1 and 2 hard amber durum wheat.

Deliverable at contract price: Nos. 1 and 2 amber durum wheat.

Deliverable at discount, 3c per bu: Nos. 1 and 2 amber mixed durum wheat, No. 3 hard amber durum.

Deliverable at discount, 3c per bu: Nos. 1 and 2 durum wheat.

Deliverable at discount, 4c per bu: Nos. 1 and 2 mixed durum wheat, No. 3 amber durum.

SPRING WHEAT

Deliverable at premium, 3c per bu: No. 1 heavy dark northern spring wheat.

Deliverable at premium, 1c per bu: No. 1 dark northern spring wheat, No. 1 heavy northern spring.

Deliverable at contract price: No. 1 northern spring wheat.

Deliverable at discount, 2c per bu: No. 2 dark northern spring wheat.

Deliverable at discount, 3c per bu: No. 2 northern spring wheat.

RYE

Deliverable at premium of 5c bu: No. 1 plump rye.

Deliverable at premium of 2½c bu: No. 2 plump rye.

Deliverable at premium of 1c bu: No. 1 rye.

Deliverable at contract price: No. 2 rye and No. 3 plump rye.

Deliverable at discount of 3c bu: No. 3 rye.

FEED BARLEY

Deliverable at premium, 2c per bu: No. 1 barley.

Deliverable at contract price: No. 2 barley.

Deliverable at discount, 4c per bu: No. 3 barley.

MALTING BARLEY

Deliverable at premium, 3c per bu: No. 1 malting barley.

Deliverable at contract price: No. 2 malting barley.

FLAXSEED

No. 1 flaxseed, contract grade. Any flaxseed, wherever grown, that shall be graded No. 1 shall be deliverable at the contract price.

No. 2 flaxseed, wherever grown, shall be deliverable at 3½c under the contract price.

Kansas City, Mo.

Deliveries on Future Contracts.—All warehouse receipts deliverable on contracts shall be for quantities or parcels, in the aggregate as sold, accompanied by a memorandum of the property to be delivered, with the price of the same, together with the amount due therefor; but in no case shall the warehouse receipts of any one elevator which are tendered on a contract be in the aggregate for less than 1,000 bus, or in the case of grain sorghums 56,000 lbs, and if two or more different grades are tendered on a contract, in no case shall the warehouse receipts of any one elevator for any one grade be in the aggregate for less than 1,000 bus, or 56,000 lbs in the case of grain sorghums; provided, on all contracts for five thousand (5,000) bus of grain, or 280,000 lbs of grain sorghums, or any multiple thereof, deliveries shall be made in lots of five thousand (5,000) bus, or 280,000 lbs of grain sorghums; and on all contracts for one thousand (1,000) bus of grain (56,000 lbs of grain sorghums), or any multiple thereof, deliveries shall be made in lots of one thousand (1,000) bus (56,000 lbs of grain sorghums); a variation, however, of 2% in the quantity of grain delivered and that contracted for shall not vitiate a tender of delivery. Any excess or deficit within the above limits shall be settled for at the current market. (Rule 255.)

Standards.—In the event of a change in United States standards for grain, all contracts for future delivery made after the issuance of the order of the Secretary of Agriculture promulgating such change, and maturing after the effective date of such change, shall be made on the basis of the standards as changed; provided, that this shall not be construed to prevent the closing of trades made prior to the issuance of such order. (Rule 267.)

Quantities.—The delivery of track grain on regular contracts shall be for quantities or parcels in the aggregate as sold, provided, on all contracts for five thousand (5,000) bus, or in the case of grain sorghums 280,000 lbs, or multiples thereof, deliveries shall be made in lots of five thousand (5,000) bus (grain sorghums, 280,000 lbs), and on all contracts for one thousand (1,000) bus (grain sorghums, 56,000 lbs), or multiples thereof, deliveries shall be made in lots of one thousand (1,000) bus (grain sorghums, 56,000 lbs). A variation, however, of 10% between the quantity of the grain contracted for and the quantity of grain delivered as shown by the bill of lading weights, shall not vitiate a tender of delivery. (Rule 282.)

Fluctuations.—In trading in grain sorghums for future delivery, bids and offers at fractional prices less than ¼c per 100 lbs shall not be permitted. (Resolution of Board of Directors, adopted Sept. 15, 1944.)

WHEAT

Deliverable at premium, 1c per bu: No. 1 dark hard wheat, No. 1 hard, No. 1 yellow hard and No. 1 red.

Deliverable at contract price: No. 2 dark hard wheat, No. 2 hard, No. 2 yellow hard, No. 2 red.

Deliverable at discount, 1c per bu: No. 3 dark hard wheat, No. 3 hard, No. 3 yellow hard, No. 3 red.

CORN

Deliverable at contract price: No. 1 mixed corn, No. 1 white, No. 1 yellow, No. 2 mixed, No. 2 white, No. 2 yellow.

Deliverable at discount, 2½c per bu: No. 3 mixed corn, No. 3 white, No. 3 yellow.

OATS

Deliverable at premium, ½c per bu: No. 1 white oats, No. 2 white, No. 1 red, No. 2 red, No. 1 special red, No. 2 special red.

Deliverable at contract price: No. 3 white oats, No. 3 red, No. 3 special red, No. 2 mixed.

Deliverable at discount, ½c per bu: No. 3 mixed oats.

GRAIN SORGHUMS

Deliverable at contract price: No. 1 milo, No. 1 bright milo, No. 1 yellow milo, No.

U.S. Wheat Supply and Distribution

Note: By crop years, in bushels, 000's omitted. **Source: USDA**

Year beginning July	SUPPLY: Old crop carry-over July 1: Farm	Interior mill, elevator and warehouse	Terminal market	Merchant mill	CCC wheat in transit*	Total	New crop	Imports	Total supply
1950†.....	67,907	126,027	168,497	55,934	4,900	423,265	1,026,755	.....	1,450,020
1949.....	67,172	76,239	128,158	32,401	3,797	307,767	1,141,188	2,307	1,451,262
1948.....	94,511	30,645	34,065	34,240	2,530	195,991	1,313,534	1,501	1,511,042
1947.....	40,477	10,116	8,129	24,591	500	83,813	1,367,186	130	1,451,129
1946.....	41,606	8,376	29,917	12,838	7,351	100,088	1,153,046	57	1,253,191
1945.....	87,703	42,129	67,185	58,463	23,700	279,180	1,108,224	2,000	1,389,404
1944.....	103,622	30,332	82,912	67,308	32,381	316,555	1,060,111	42,347	1,419,013
1943.....	189,574	103,804	162,151	104,378	58,990	618,897	843,813	136,360	1,599,070
1942.....	162,722	142,366	224,441	96,837	4,409	630,775	969,381	1,057	1,601,213
1941.....	86,675	73,789	142,671	81,598	.....	384,733	941,970	3,664	1,330,367
1940.....	79,572	35,312	84,187	80,650	.....	279,721	814,646	3,523	1,097,890
1939.....	88,016	36,842	64,103	61,054	.....	250,015	741,210	263	991,488

*Beginning July 1, 1942, owned by Commodity Credit Corp. in transit and in steel and wooden bins. Additional government stocks are included in other positions. †Preliminary.

WHEAT—DISAPPEARANCE, U.S., 1939-50*

Year beginning July—	Continental U.S.: Processed for food	Seed	Industrial	Feed	Total	Military procurement†	Exports‡	Shipments¶	Total
1949§.....	485,024	81,432	70	154,464	720,991	123,805	179,418	3,783	1,027,997
1948.....	478,999	94,615	79	117,489	691,182	181,518	327,042	3,517	1,203,259
1947.....	488,752	90,746	608	182,188	762,294	148,616	340,312	3,916	1,255,138
1946.....	483,329	86,498	44	175,434	745,305	92,452	327,628	3,993	1,169,378
1945.....	473,518	82,011	20,971	297,898	874,398	90,884	320,026	4,008	1,289,316
1944.....	471,895	80,373	82,295	301,971	936,534	150,146	49,196	4,047	1,139,833
1943.....	481,876	77,351	107,527	507,175	1,173,929	62,759	42,811	3,016	1,282,515
1942.....	499,986	65,487	54,342	300,823	920,638	25,244	30,872	5,562	982,316
1941.....	473,266	62,490	1,614	114,145	651,515	16,133	27,880	4,060	699,592
1940.....	491,845	74,351	101	109,388	675,685	.....	33,638	3,834	713,157
1939.....	490,415	72,946	89	99,953	663,403	.....	44,893	3,471	711,767

*Includes flour and products in terms of wheat. †Includes procurement for both civilian relief feeding and for military food use; military takings for civilian feeding in occupied areas measured at time of procurement, not at time of shipment overseas. ‡Exports as here used, in addition to commercial exports, include USDA flour procurement rather than deliveries for export. Beginning with 1941-42, deliveries for export (actual exports, including those for civilian feeding in occupied area) of wheat, flour and other products, in million bushels, were as follows: 27.9; 28.0; 42.6; 144.4; 390.6; 397.4; 484.9; 503.1 and for 1949-50, 398.9. §To Alaska, Hawaii, Puerto Rico and Virgin Islands. ¶Preliminary.

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1 bright yellow milo, No. 1 kafir corn, No. 1 bright kafir corn, No. 1 white kafir corn, No. 1 bright white kafir corn, No. 1 red kafir corn, No. 1 bright red kafir corn, No. 1 white sorghums, No. 1 bright white sorghums, No. 1 yellow sorghums, No. 1 bright yellow sorghums, No. 2 milo, No. 2 bright milo, No. 2 yellow milo, No. 2 bright yellow milo, No. 2 kafir corn, No. 2 bright kafir corn, No. 2 white kafir corn, No. 2 bright white kafir corn, No. 2 red kafir corn, No. 2 bright red kafir corn, No. 2 white sorghums, No. 2 bright white sorghums, No. 2 yellow sorghums, No. 2 bright yellow sorghums.

Deliverable at discount, 2c per bu: No. 1 mixed sorghums, No. 1 bright mixed sorghums, No. 2 mixed sorghums, No. 2 bright mixed sorghums, and consisting of 70% or more of grain sorghums of the types white kafir, white durra, yellow milo, or red kafir, singly or combined, and not more than 10% of brown sorghums.

Deliverable at discount, 6c per bu: No. 3 mixed sorghums, No. 3 bright mixed sorghums, and consisting of 70% or more of grain sorghums of the types white kafir, white durra, yellow milo, or red kafir, singly or combined, and not more than 10% of brown sorghums.

Deliveries of the above grades of wheat, corn, oats and grain sorghums may be made in such proportions as may be convenient to the seller, subject, however, to the provisions of Rules 255 and 323 and Chapter XIX. (Rule 250, Rule 251, Rule 252 and Rule 253.)

MILLFEED FUTURES

Trading conducted in bran and shorts:

BRAN

Deliverable at contract price: "Contract bran" (wheat bran).

SHORTS

Deliverable at contract price: "Contract shorts" (gray shorts).

Millfeeds traded on the Board of Trade of Kansas City, Mo., for future delivery consist of "contract millfeeds" and a tender of any of the following by-products resulting from 80% extraction of flour from wheat shall be deemed valid: "Standard wheat bran," "pure wheat bran," "wheat mill run," "wheat mixed feed," "brown shorts," or "gray shorts"; provided, however, that by-products from durum wheat will not be a valid tender. The unit of trading for future delivery shall be 120 tons in round lots and 30 tons in job lots. (Rules 290, 291, 292.) To be a valid tender upon futures contracts cars of millfeed must contain 30 tons (or 600 sacks of 100 lb. net weight each when packed)—no more and no less; . . . (Rule 289(h).) Millfeeds tendered upon contracts for future delivery must be packed in new 100 lb. net weight burlap sacks or cotton sacks (when packed), of dimensions not less than 40 in. by 48 in. for bran, and 40 in. by 46 in. for shorts, and must be cool, sound and sweet and conform to the description provided in these rules (Rules 290 and 291); provided, that no carload of millfeed shall be a valid tender unless the contents are packed exclusively in burlap sacks or in cotton sacks and provided further that when millfeed in cotton sacks is tendered such sacks shall be of 4.25 yard minimum weight; provided, further, that deliveries may be made in used burlap sacks or cotton sacks of the dimensions specified above at discounts under the contract price as determined by the Millfeed Committee, and it shall be the duty of the said Committee to announce not later than seven days prio to the first day of every delivery month the discounts which shall prevail during said month for millfeed packed in such containers, but no used sack shall be tendered on delivery unless it shall be sound and duable and shall have been cleaned and fumigated after its last use and the seller shall in every such case certify that the sacks have been cleaned and fumigated as herein required; and provided, further, that whenever it shall appear to the satisfaction of the Board of Directors that there is a marked shortage of new and used burlap and cotton bags and that paper sacks are currently being used to pack millfeed the Board may by resolution authorize deliveries of millfeed packed in paper sacks of such specification as the Board may prescribe, and in such event the Millfeed Committee so long as such resolution is in effect shall announce not later than seven days prior to the first day of every delivery month the discount which shall prevail during said month for millfeed packed in such paper containers. Carloads of millfeed to be valid for delivery must be of only one mill's manufacture, and the sacks must be properly tagged or labeled to show the name of the manufacturer and the description or analysis of the contents. (Rule 301.)

All contracts made for **Wheat Bran** shall be understood as for "contract bran," and on such contracts a tender of bran to be valid must conform to the following description: **Wheat bran** shall consist of the coarse outer covering of the wheat kernel as separated from cleaned and scoured wheat in the usual process of commercial milling and may include ground wheat screenings and scourings mill run but not to exceed 8.0%. Durum wheat bran shall not be a valid tender for delivery. (Rule 290.)

All contracts for **Gray Shorts** shall be understood as for "contract shorts," and on such contracts a tender of shorts to be valid must conform to the following description: Gray shorts shall consist of fine particles of the outer bran, the inner bran or bee-wing bran, the germ, and the offal or fibrous materials obtained from the "tail of the mill." This product must be obtained in the usual process of commercial milling of wheat and shall not contain more than 6.0% crude fiber. It may contain ground wheat screenings and scourings mill run but not to exceed 8.0%. (Rule 291.)

Los Angeles

All sales or purchases of any commodity made between members of the Los Angeles Grain Exchange for future delivery for 100-ton lots are known as "time contracts."

BARLEY

Deliverable at contract price: No. 2 western barley (46 lb. or better), deliverable at discount 25¢ bu.: No. 2 western (45 lb. or better); deliverable at discount 50¢ bu.: No. 2 western (44 lb. or better).

GRAIN SORGHUMS

Deliverable at contract price: No. 2 yellow milo, subclass (A).

"Deliveries of all grain sold on time contracts shall be made in public warehouses in the State of California, and shall be made by tender of regular negotiable warehouse receipt or receipts, sufficient to fill the contract covering the grain in same warehouse, which receipt or receipts shall be issued by such warehouses as are approved by the State Public Utilities Commission, or receipts issued under the U.S. Warehouse Act. Warehouse receipts covering bulk grain shall be applicable only when issued by warehouses or elevators designated by the board of directors; and such receipts shall have endorsed thereon the grade of grain to be delivered. Receipts covering sacked grain shall have attached thereto a Federation Inspection Certificate or a Los Angeles Grain Exchange Certificate of sample inspection of each lot tendered, giving the grade, lot number, quantity and date of inspection, which must be not more than fifteen (15) days prior to date of tender, and must bear the name and location of the warehouse in which the grain is stored, the name of the warehouseman or federal inspector who drew the sample and the date on which sample was drawn. All accrued storage charges, if any, and storage charges up to and including May 31, next, but in no case to be less than ten (10) days next, following date of tender, shall be paid or allowed by the seller. The all railroad freight rates prevailing at the time of delivery and for a period of not less than ten (10) days after date of tender from point of delivery to Los Angeles shall be deducted by the seller. All loading out charges shall be paid or allowed by the seller. No delivery shall be made on a time contract except during the contract month." (Rule 24, Sec. 23.)

Memphis

Deliverable grades of soybean meal and discounts per ton, as amended Oct. 24, 1950, effective October 1951, and subsequent futures.

Grade—	Protein %	Discounts
Old process soybean meal	41	0*
Solvent soybean meal	44	0*

*Contract price.

The contract was changed from a "sacked" to a "bulk" basis Oct. 24, 1950, effective on October, 1951, and subsequent futures. It provides for the delivery of "200,000 lb. in bulk of either 41% protein old process soybean meal or 44% protein solvent soybean meal at seller's option, produced within the U.S. . . . deliverable at seller's option at any authorized delivery point as provided in Rule 212, f.o.b. basis Decatur, Ill., freight rates, as defined in

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Rule 211 . . . either in cars or by demand certificate. . . . The soybean meal dealt with herein or delivered hereunder shall in all respects meet the requirements of Rules 201 and 202 . . ." (Rule 210.)

"Description—Soybean meal to be traded in on this market and deliverable against sales contracts shall be 41% protein old process soybean meal or 44% protein solvent soybean meal as is described in the Trading Rules of the National Soybean Processors Assn.

"Official Grades—41% protein soybean meal must be identical with what is known as old process soybean meal and 44% protein soybean meal must be identical with what is known as solvent soybean meal and shall meet the following standard specifications:

41% Protein Old Process Soybean Meal	
Protein	Minimum 41.0%
Fat	Minimum 3.5%
Fiber	Maximum 7.0%
N.F.E.	Minimum 29.0%
Moisture	Maximum 12.0%
44% Protein Solvent Soybean Meal	
Protein	Minimum 44.0%
Fat	Minimum 0.5%
Fiber	Maximum 7.0%
N.F.E.	Minimum 29.0%
Moisture	Maximum 12.0%

"Good Delivery—The standard of quality shall be soybean meal of fair merchantable quality based on the season's production and conforming to standard definitions and standard specifications of the National Soybean Processors Assn., which are herewith made a part of these Trading Rules and which specifications are subject to modification from season to season as conditions may warrant, upon recommendation of the Technical Committee of the National Soybean Processors Assn.

"A tender of soybean meal for delivery varying in weight more than 1% shall not be accepted, but if the variation is not more than 1% it shall be accepted for delivery and the exact quantity invoiced at the settlement price without prejudice to the contract." (Rule 202.)

Rules 203, 204, 205, 214 and 215 relate to seller's warranty of weights, claims for short weight, allowances, delivery in cars and delivery by demand certificate.

"Delivery Points—Designated delivery points for soybean meal traded in for future delivery on the exchange are: Bloomington, Ill.; Champaign, Ill.; Chicago, Ill.; Decatur, Ill.; Gibson City, Ill.; Kankakee, Ill.; Quincy, Ill.; Pana, Ill.; Peoria, Ill.; Springfield, Ill.; Taylorville, Ill. All deliveries at the above points shall be f.o.b. basis, Decatur, Ill., freight rates to final destination as defined in Rule 211." (Rule 212.)

"Other Delivery Points—The Board may change the designated delivery points from time to time, and such changes shall become regular 30 days after their announcement, and shall apply to all contracts made before, on and after the date on which each such change becomes effective." (Rule 213.)

Milwaukee

Deliverable Grades.—Deliverable grades of commodities on this exchange are the same as those deliverable on the Chicago Board of Trade. Futures trading on the Milwaukee Grain Exchange "contemplates delivery of Chicago warehouse receipts in fulfillment of futures contracts."*

Contracts for the purchase or sale of commodity futures are "deemed to be for the standard of quality or grade as established by the United States Department of Agriculture under the provisions of the Grain Standards Act" where such grades are established. The establishment of new grades or changes in established grades does not affect the validity of pending contracts. Commodities officially graded under the provisions of rules in force at the time of delivery are deemed to be valid tender on futures contracts. (Rule 105, sec. 7.)

Deliveries by Warehouse Receipt.—All deliveries of futures commodities are "made in warehouse receipts" for grain in warehouses approved or declared regular by the Board of Directors. Deliveries are made in lots of 1,000 or 5,000 bus with a variation of 1% permitted. Grain in cars, however, may be tendered on contracts under specified conditions. Warehouse receipts of licensed public elevators whose receipts are deliverable in fulfillment of futures contracts "under the rules of other regularly organized exchanges, and which prior to the making of the contract have been approved by the Board of Directors of the Association," are deliverable on futures contracts of this exchange. Such organized exchanges must be specified at the time the contracts are made. The contract grades provided by "such regularly organized exchanges" are "the grades deliverable when warehouse receipts of warehouses which are regular under the rules of such regularly organized exchanges are deliverable in fulfillment of future contracts. (Rule 105, sec. 1.) The Chicago Board of Trade is the only exchange approved under this provision of the rules. Any such approval may be revoked at any time. (Rule 105, secs. 1-6.)

*Letter from H. A. Plumb, secretary of the Milwaukee Grain & Stock Exchange, to the Commodity Exchange Administration, Nov. 10, 1939.

WHEAT

Deliverable at premium, 1½c per bu: No. 1 dark northern spring heavy, No. 1 dark hard winter.

Deliverable at premium, 1c per bu: No. 1 northern spring heavy, No. 1 hard winter, No. 1 yellow hard winter and No. 1 red winter.

Deliverable at premium, ½c per bu: No. 1 dark northern spring and No. 2 dark hard winter.

Deliverable at contract price: No. 1 northern spring, No. 2 hard winter, No. 2 yellow hard winter and No. 2 red winter.

CORN

Deliverable at premium, 1½c per bu: No. 1 white, No. 1 yellow, No. 2 white and No. 2 yellow.

Deliverable at contract price: No. 1 mixed, No. 2 mixed.

Deliverable at discount, 2c per bu: No. 3 white, No. 3 yellow.

Deliverable at discount, 2½c per bu: No. 3 mixed.

RYE

Deliverable at premium, 4c per bu: No. 1 plump.

Deliverable at premium, 2½c bu: No. 2 plump.

Deliverable at premium, 1c bu: No. 1 rye.

Deliverable at contract price: No. 2.

OATS*

Deliverable at premium, 3½¢ per bu.: No. 1 extra heavy white, No. 1 extra heavy special red.

Deliverable at premium, 3¢ per bu.: No. 2 extra heavy white, No. 2 extra heavy special red.

Deliverable at premium, 2¢ per bu.: No. 3 extra heavy white, No. 3 extra heavy special red, No. 1 heavy white, No. 1 heavy special red.

Deliverable at premium, 1½¢ per bu.: No. 2 heavy white, No. 2 heavy special red.

Deliverable at premium, ½¢ per bu.: No. 1 white, No. 1 special red, No. 3 heavy white, No. 3 heavy special red.

Deliverable at contract price: No. 2 white, No. 2 special red.

Deliverable at discount, 1½¢ per bu.: No. 3 medium heavy white, No. 3 medium heavy special red.

Deliverable at discount, 2½¢ per bu.: No. 3 white, No. 3 special red.

*Bright oats carry no additional premium or discount.

Minneapolis

Warehouse receipts of certain elevators in Duluth, Minn., and Superior, Wis., which have been declared regular by the board of directors of the Minneapolis Grain Exchange, may be delivered upon Minneapolis spring wheat, oats, rye, barley and corn futures at the Minneapolis contract bases, and upon Minneapolis flaxseed futures at ½c per bu discount under the Minneapolis contract basis.

Contract Grades and Standards.—Except as hereinafter provided, all Futures Contracts made in this market shall call for the delivery of the Contract Grade, or another Deliverable Grade, of the commodity specified in such contracts, in accordance with the United States Standards which were in effect at the time such contracts were made.

Provided, however, that after the date

on which an amendment to the United States Standards for any commodity has been announced, and prior to the date upon which such amendment becomes effective, Futures Contracts in such commodity may be made which call for delivery on or after the date upon which such amendment becomes effective, in accordance with the United States Standards as so amended, if the making of such contracts has been duly authorized by the Association.

Provided further, that the provisions of this section shall not be construed to prevent the closing, on and after the effective date of such change, of trades which were made, on the basis of the old standards, prior to the effective date of such change. (See Rules and Regulations under Commodity Exchange Act, Sec. 1.45.) (Rule 1002.) The contract grades of commodities shall be as set forth below and such grades shall be deliverable at the contract price: No. 1 Northern Spring Wheat on the Spring Wheat future; No. 2 Amber Durum on the Durum Wheat future; No. 2 Yellow Corn; No. 2 White Oats; No. 2 Barley on the Feed Barley future; No. 2 Malting Barley on the Malting Barley future; No. 2 Rye; No. 1 Flaxseed. Other grades are deliverable at specified premiums or discounts. (Rule 1003.)

Deliveries:—How Made.—Delivery on Futures Contracts shall be made by the delivery of registered warehouse receipts for commodities "in store" in an elevator which is "Regular" under the Rules of the Association. Such receipts must be for a Contract or other Deliverable Grade of the commodity specified in the Futures Contract, in accordance with the United States Standards made applicable to such contract by the provisions of Section 1002, and must be accompanied by freight bills (and/or checks) as provided in this Chapter.

Attention is directed to the fact that, under the law, warehouse receipts call for the delivery by the warehouseman of commodities of the kind and grade specified in the receipt, in accordance with the official standards which were in effect at the time the commodities represented by the receipts were graded.

All warehouse receipts delivered on Futures Contracts must bear dates, which, under the interpretation of the law hereinabove stated, make them conform to the requirements of this section. (Rule 1004.)

Quantities Deliverable.—Deliveries of all commodities on Futures Contracts shall be in lots of one thousand (1,000) bus or multiples thereof, except in the case of Flaxseed, in which deliveries shall be in lots of five hundred (500) bus or multiples thereof. (Rule 1001.)

Contract Price.—The contract price for Futures Contracts cleared by the Clearing Association shall be the last settling price for such contracts with the Clearing Association. (Rule 1007.)

WHEAT

Deliverable at premium, 2¢ per bu.: No. 1 heavy dark northern spring.

Deliverable at premium, 1¢ per bu.: No. 1 dark northern spring, No. 1 heavy northern spring.

Deliverable at contract price: No. 1 northern spring.

Deliverable at discount, 1¢ per bu.: No. 2 dark northern spring.

Deliverable at discount, 2¢ per bu.: No. 2 northern spring.

DURUM WHEAT

Deliverable at premium, 2¢ per bu.: No. 1 hard amber, No. 2 hard amber.

Deliverable at contract price: No. 1 amber, No. 2 amber.

Deliverable at discount, 2¢ per bu.: No. 1 amber mixed, No. 2 amber mixed, No. 3 hard amber.

Deliverable at discount, 3¢ per bu.: No. 1, No. 2.

Deliverable at discount, 4¢ per bu.: No. 3 amber.

FEED BARLEY†

Deliverable at premium, 1¢ per bu.: No. 1, No. 1 malting.

World Wheat Carry-Over

Note: Four major exporting countries, on or about July 1, in bushels, 000,000's omitted. Source: USDA

	United States*	Canada†	Argentina	Australia	Total
1950‡	423	136	110	120	789
1949	308	135	125	95	663
1948	196	105	130	105	536
1947	84	124	125	56	389
1946	100	104	115	68	387
1945	279	314	175	50	818
1944	319	398	290	159	1,166
1943	619	630	285	200	1,737
1942	631	449	238	142	1,460
1941	385	517	201	75	1,178
1940	280	322	102	135	839
1939	251	126	264	65	706
1938	154	38	99	62	353
1937	83	53	61	52	249

Compiled as follows:

United States—Stocks on farms, in interior mills and elevators, commercial owned and stored for others in merchant mills and elevators, and Commodity Credit Corp. stocks not otherwise included.

Canada—Carry-over July 31, plus net exports and estimated retention of flour for July.

Argentina—Carry-over on Dec. 31, plus exports and estimated domestic consumption, July 1 to Dec. 31.

Australia—Carry-over on Dec. 1, plus net exports and estimated domestic consumption July 1 to Nov. 30.

*Includes United States wheat in Canada. Includes small quantities of new wheat prior to 1937.

†Includes Canadian wheat in the United States.

‡Preliminary.

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DOMESTIC

IMPORT EXPORT

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BRANCHES:

MINNEAPOLIS CHICAGO FORT WORTH

KANSAS CITY PORTLAND, ORE.

WINNIPEG, MAN. VANCOUVER, B. C.

U.S. Durum Wheat Supply and Distribution

Note: In bushels, 000's omitted. Source: USDA

Items of supply and distribution—	1945-46	1946-47	1947-48	1948-49	1949-50	1950-51
Supply—Stocks, July 1—						
Farm	5,399	2,149	2,718	5,903	5,557	6,783
Interior mills and elevators	1,357	335	611	2,213	5,783	5,028
Commercial	276	1,598	2,077	533	5,213	5,288
Merchant mills	1,104	841	3,501	1,660	1,197	2,618
Total	8,136	4,923	8,907	10,309	17,750	19,717
Crop*	33,285	36,337	44,985	45,478	39,267	36,795
Total domestic supply	41,421	41,260	53,892	55,787	57,017	56,512
Imports	†1,192	†350	‡...	‡...	‡...	‡...
Total supply, July-December	42,613	41,610	53,892	55,787	57,017	56,512
Distribution, July-December—						
Mill grindings	12,664	11,429	13,997	11,452	11,663	11,961
Feed, cereal mfg. and other uses	5,525	1,234	765	1,629	3,743	17
Exports	....	....	4,639	957	1,494	3,180
Total	18,189	12,663	19,401	14,038	16,900	14,158
Stocks, Dec. 31—						
Farm	17,645	18,938	24,536	25,863	22,513	19,827
Interior mills and elevators	3,025	4,017	3,758	7,974	7,716	8,917
Commercial	652	835	2,648	3,778	5,434	7,957
Merchant mills	3,102	5,157	3,549	4,134	4,454	5,653
Total	24,424	28,947	34,491	41,749	40,117	42,354
Imports, January-June	†345	‡...	‡...	‡...	‡...	....
Total supply, January-June	24,769	28,947	34,491	41,749	40,117	....
Distribution, January-June—						
Mill grindings	9,579	9,936	14,182	10,232	9,967	....
Seed requirements	3,482	4,130	4,536	5,163	4,563	....
Feed, cereal mfg. and other uses	6,785	5,053	1,663	7,025	5,599	....
Exports	....	921	3,802	1,579	271	....
Total	19,846	20,040	24,182	23,999	20,400	....
Stocks, June 30	4,923	8,907	10,309	17,750	19,717	....

*All states. †Canadian durum shipped into the U.S. ‡Not reported.

U.S. Stocks of Wheat on July 1, 1950

Note: By quarters, in bushels, 000's omitted. **Source: USDA**

State—	In interior mills, elevators and warehouses, July 1			Merchant mills July 1		On farm total† July 1		Wheat, total† all positions, July 1	
	Average 1939-48	1949	1950	1949	1950	1949	1950	1949	1950
New Eng.	196	*...	*...	*...	*...	714	1,273	714	1,273
New York	798	*...	*...	2,245	5,850	7,595	25,890	8,591	26,654
N. J.	71	*...	81	*...	*...	340	846	446	966
Pennsylvania	266	130	120	150	245	920	1,973	2,297	3,557
Ohio	611	*...	1,369	*...	*...	1,377	5,881	3,106	7,381
Indiana	718	691	701	393	567	1,235	1,976	1,998	2,569
Illinois	607	718	1,013	650	1,292	7,803	7,497	8,829	7,991
Michigan	633	422	1,361	355	1,088	777	2,449	2,591	4,025
Wisconsin	260	*...	*...	*...	*...	9,870	8,501	10,480	9,106
Minnesota	2,767	1,810	2,809	2,268	4,830	16,323	24,445	17,522	26,852
Iowa	523	600	391	427	847	6,123	6,621	6,382	6,935
Missouri	483	208	1,481	4,185	5,466	22,321	25,469	23,499	27,045
N. Dak.	11,646	19,186	14,078	1,429	1,412	20,615	15,490	37,530	34,435
S. Dak.	3,152	4,100	4,900	120	230	4,220	5,133	12,283	13,016
Nebraska	1,968	4,156	6,979	2,012	1,346	14,640	14,470	16,715	16,918
Kansas	5,462	6,949	24,651	7,600	12,885	43,241	75,765	47,868	80,691
Delaware	19	*...	2	*...	2	11	4	21	10
Maryland	86	29	11	188	*...	2,277	3,325	2,398	3,463
Virginia	110	45	93	120	148	165	241	671	547
W. Virginia	18	8	10	15	13	23	23	321	233
N. Carolina	65	14	17	112	138	126	155	428	415
S. Carolina	10	9	4	41	22	50	26	117	65
Georgia	21	*...	*...	*...	*...	11	23	71	69
Kentucky	253	25	401	382	590	422	1,332	1,474	1,385
Tennessee	84	*...	152	277	330	744	636	905	701
Alabama	28	*...	*...	*...	*...	12	43	17	45
Mississippi	16	14	*...	*...	*...	14	11	23	14
Arkansas	24	6	*...	*...	*...	6	4	22	8
Louisiana	...	...	...	...	...	1,825	521	1,825	521
Oklahoma	1,043	1,884	7,306	759	3,865	13,916	30,566	14,906	32,784
Texas	1,512	35	18,495	1,298	5,274	12,446	37,332	14,031	39,476
Montana	3,975	11,714	6,561	1,694	1,699	13,608	8,260	27,666	14,668
Idaho	2,399	3,266	5,528	562	569	3,828	6,097	5,984	6,859
Wyoming	51	*...	*...	*...	*...	250	265	616	1,201
Colorado	707	1,861	4,848	835	772	3,085	6,124	5,023	8,602
N. Mexico	49	23	451	20	127	43	578	217	874
Arizona	28	*...	*...	*...	*...	10	30	16	44
Utah	527	700	900	642	923	2,242	3,073	2,764	3,734
Nevada	22	17	2	...	...	17	7	45	29
Washington	6,486	9,400	10,838	1,544	1,794	14,812	16,792	15,605	17,942
Oregon	2,787	4,200	3,800	536	746	7,431	7,250	8,479	7,946
California	895	422	1,131	326	274	1,316	1,719	1,474	1,799
Unallocated*	...	3,281	3,260	1,016	2,648	3,797	3,945	3,797	3,945
U. S.	51,371	76,239	122,754	32,401	55,992	240,595	352,143	307,767	416,803

*Unallocated—to avoid disclosing individual operations. †Includes, in addition to stocks in interior mills, elevators and warehouses and merchant mills, commercial stocks reported by Grain Branch, PMA, at terminals, and an estimate of those owned by Commodity Credit Corp. which are in transit in bins and other storages under CCC control. ‡Short-time average.

U.S. Stocks of Wheat on April 1, 1950

Note: By quarters, in bushels, 000's omitted. **Source: USDA**

State—	In interior mills, elevators and warehouses, April 1			Merchant mills April 1		On farm total† April 1		Wheat, total† all positions, April 1	
	Average 1939-48	1949	1950	1949	1950	1949	1950	1949	1950
N. Eng.	259	*...	*...	16	24	314	761	314	761
New York	984	*...	*...	*...	5,767	7,212	32,932	9,204	34,972
New Jersey	98	96	118	*...	*...	2,058	700	2,305	959
Pennsylvania	528	250	320	395	840	1,980	4,986	5,467	8,575
Ohio	1,407	1,326	3,125	*...	*...	5,009	9,664	10,774	16,864
Indiana	1,228	670	1,124	1,805	1,726	2,591	3,954	4,308	6,721
Illinois	1,278	1,300	1,724	1,761	2,785	5,414	11,732	7,056	15,682
Michigan	1,327	1,172	2,357	1,451	3,010	2,623	5,367	8,063	14,472
Wisconsin	447	79	1,116	*...	*...	7,751	8,483	8,942	9,567
Minnesota	3,937	2,454	3,026	4,420	6,452	17,605	26,879	24,061	33,699
Iowa	681	825	372	810	1,046	7,223	7,199	8,036	7,985
Missouri	886	369	1,547	5,966	8,553	27,337	28,505	30,086	30,957
N. Dak.	19,257	20,400	15,903	1,432	1,719	21,832	17,622	89,492	67,770
S. Dak.	5,078	4,800	4,100	185	170	4,985	4,270	27,157	22,094
Nebraska	3,948	5,863	7,343	2,557	2,192	16,971	16,188	31,909	23,805
Kansas	14,453	26,318	41,162	12,700	16,364	69,231	95,636	99,309	116,983
Delaware	27	22	20	12	18	34	38	103	62
Maryland	192	50	36	338	392	2,812	3,802	3,114	4,283
Virginia	218	98	*...	484	479	582	1,219	1,685	2,267
W. Virginia	36	15	22	49	42	64	64	512	349
N. Carolina	115	101	84	295	393	396	477	1,121	1,171
S. Carolina	30	10	10	185	190	195	200	362	277
Georgia	50	28	21	71	90	99	111	308	202
Kentucky	476	184	492	1,376	1,750	1,819	2,809	2,026	2,967
Tennessee	279	126	*...	713	907	1,016	1,673	1,358	1,891
Alabama	13	*...	32	*...	*...	96	121	108	139
Mississippi	30	*...	13	*...	*...	12	18	40	29
Arkansas	18	9	6	...	*...	9	6	103	26
Louisiana	...	...	...	...	...	470	691	470	691
Oklahoma	4,130	12,188	17,220	3,339	6,643	27,880	43,133	31,838	46,682
Texas	4,909	8,282	26,377	4,917	10,077	22,244	53,702	24,608	56,787
Montana	7,068	12,100	9,673	2,340	2,363	14,440	12,036	49,116	34,464
Idaho	5,143	6,267	9,099	1,218	862	7,185	9,960	12,875	15,296
Wyoming	100	273	258	153	195	426	453	3,156	2,793
Colorado	1,827	4,807	6,854	1,995	1,790	7,593	9,243	23,098	19,649
N. Mexico	96	340	1,560	58	230	398	1,790	816	2,185
Arizona	56	50	71	88	101	138	172	196	214
Utah	735	1,025	1,175	1,132	1,525	3,457	3,836	5,370	6,196
Nevada	52	14	14	...	...	14	14	99	162
Washington	14,870	22,299	19,275	2,881	3,366	29,112	24,927	33,868	29,528
Oregon	5,717	8,900	6,900	1,569	1,428	13,251	11,377	16,546	13,692
California	1,928	1,217	1,402	741	779	1,978	2,370	2,281	3,517
Unallocated*	...	3,944	6,144	5,837	4,322	3,376	5,548	3,376	5,548
U. S.	103,731	148,271	188,979	63,229	88,583	339,532	463,769	585,556	662,938

*Unallocated—to avoid disclosing individual operations. †Includes, in addition to stocks in interior mills, elevators and warehouses and merchant mills, commercial stocks reported by Grain Branch, PMA, at terminals, and an estimate of those owned by Commodity Credit Corp. which are in transit in bins and other storages under CCC control. ‡Short-time average.

Deliverable at contract price: No. 2, No. 2 malting.
Deliverable at discount, 2¢ per bu.: No. 3.
†Trading is dormant.

RYE

Deliverable at premium, 5¢ per bu.: No. 1 plump.
Deliverable at premium, 2½¢ per bu.: No. 2 plump.
Deliverable at premium, 1¢ per bu.: No. 1.
Deliverable at contract price: No. 2, No. 3 plump.
Deliverable at discount, 1¢ per bu.: No. 3.

MALTING BARLEY†

Deliverable at contract price: No. 1 malting barley, No. 2 malting barley.
†Trading is dormant.

CORN

Deliverable at contract price: No. 1 yellow corn, No. 2 yellow.
Deliverable at discount, 2½c per bu: No. 3 yellow corn.

WHITE OATS

Deliverable at premium, 5¢ per bu.: No. 1 extra heavy, No. 1 extra heavy bright.
Deliverable at premium, 4¢ per bu.: No. 2 extra heavy, No. 2 extra heavy bright.
Deliverable at premium, 3¢ per bu.: No. 3 extra heavy, No. 3 extra heavy bright.
Deliverable at premium, 2¢ per bu.: No. 1 heavy, No. 1 heavy bright.
Deliverable at premium, 1½¢ per bu.: No. 2 heavy, No. 2 heavy bright.
Deliverable at premium, 1¢ per bu.: No. 1, No. 1 bright.
Deliverable at premium, ½¢ per bu.: No. 3 heavy, No. 3 heavy bright.
Deliverable at contract price: No. 2, No. 2 bright.
Deliverable at discount, 1¢ per bu.: No. 3 medium heavy.
Deliverable at discount, 3¢ per bu.: No. 3, No. 3 bright.

FLAXSEED

Deliverable at contract price: No. 1 flaxseed.
Deliverable at discount, 5¢ per bu.: No. 2 flaxseed.

Portland

WHEAT

All trades shall be on the basis of bulk wheat of grades conforming to the official United States standards, track and/or elevator and/or warehouse, subject to the following discounts and differentials:

DELIVERIES MADE BY TENDERS OF WAREHOUSE RECEIPTS

Deliverable at contract price: No. 1 hard white wheat, No. 1 soft white, No. 1 white club, No. 1 western white, No. 1 heavy dark northern spring, No. 1 heavy northern spring, No. 1 heavy red spring, No. 1 dark northern spring, No. 1 northern spring, No. 1 red spring, No. 1 dark hard winter, No. 1 hard winter, No. 1 yellow hard winter, No. 1 western red.
Deliverable at discount, 1c per bu: No. 2 of the above subclasses.
Deliverable at discount, 3c per bu: No. 3 of the above subclasses.
Deliveries on contracts may be tendered either in cars on track at Portland, or in regular warehouses or elevators at Portland, or in elevators or warehouses at country points which have been designated regular by the board of directors. (Secs. 2, 3 and 4, Trading Rule XVI).

DELIVERIES MADE ON TRACK

Deliverable at contract price: No. 1 of the above subclasses.
Deliverable at discount: Nos. 2 and 3 of the above subclasses shall be accepted at the published discounts, differentials and service charges of the Portland Grain Exchange in effect at the time trade is executed.
Portland Grain Exchange schedule of differentials, discounts and service charges in effect at time trade is executed shall govern final settlement as it applies to smutty wheat, sacked differentials, resacking, bad order sacks and interest charges. (Secs. 1 and 2, Trading Rule XV.)

St. Louis

WHEAT

Deliverable at contract price: No. 1 red winter wheat, No. 2 red winter.

CORN

(Futures trading suspended June 25, 1943.)
Deliverable at premium, ½c per bu: No. 1 white corn, No. 2 white, No. 1 yellow, No. 2 yellow.
Deliverable at contract price: No. 1 mixed corn, No. 2 mixed.
Deliverable at discount, 2¢ per bu.: No. 3 white corn, No. 3 yellow.

Deliverable at discount, 2¼¢ per bu.: No. 2 mixed corn.

During the months of March, April and May No. 3 white corn, No. 3 yellow and No. 3 mixed cannot be delivered except at a further discount of two cents (2c) per bu from schedules above.

OATS

Deliverable at contract price: No. 1 white oats, No. 2 white.

Deliverable at discount, 1½c per bu: No. 3 white oats.

MILLFEED FUTURES

Deliverable grades of millfeeds and premiums or discounts per 100 lb., April 30, 1947.

MILLFEEDS†

Commodity	Grade	Prem. or discounts
Delivered St. Louis‡:		cents
Wheat bran	†	0*
Gray wheat shorts and/or flour middlings	†	0*
Delivered Chicago**:		
Wheat bran	†	0*
Standard wheat midds.	†	0*

*Contract price.

†Trading in millfeed futures contracts shall be in the following commodities: Wheat bran—St. Louis; gray wheat shorts and/or flour midds.—St. Louis; wheat bran—Chicago; standard wheat midds.—Chicago. (Rules 1056, 1057, 1058, 1059, 1060.) "Any or all of the above-named commodities, when labeled and guaranteed by the seller to conform with the definitions of the Association of Feed Control Officials of the U.S., shall be deliverable on their respective contracts except those derived from durum wheat, which shall not be deliverable." (Rule 1061.)

‡"St. Louis contracts contemplate shipment into or from the City of St. Louis, Mo., or East St. Louis, Ill." (Rule 1058.)

**"Chicago contracts contemplate shipment into or from the City of Chicago, Ill." (Rule 1060.)

Packages—Effective April 9, 1947, all millfeed tendered must be packed "in 100 lb. net weight new burlap sacks, or in 100 lb. net weight new cotton sacks of 4.25 yards-to-the-pound minimum weight material and of adequate size; or, until otherwise specified by the Board of Directors, in comparable used bags, at a basis to be determined by the Board . . . not to exceed a discount of 50¢ per ton. No car load of millfeed shall be a valid tender unless the contents are packed exclusively in burlap sacks or in cotton sacks." (Regulation 112, adopted April 8, 1947, in accordance with Rule 1074.)

All millfeed tendered must be "cool, sound and sweet." (Rule 1075.)

The unit of trade is 120 tons. Lesser quantities in multiples of 30 tons are considered job lots. Deliveries must be made in 30-ton cars. Each carlot must be the product of one mill. (Rule 1062.)

Delivery Months—"Effective Oct. 28, 1946, trading in millfeed futures shall be in contracts for delivery in January, March, May, July, September and November. Be-

For Additional Facts:

Feed Section - Page 91
- Definitions
- Feed Rules
- Feedstuffs Analysis Table
- Prices
- Production

Flour Section - Page 3
- Exports and Imports
- Production
- World Import Duties

Foreign Section, Page 41
- Crops
- Exports and Imports
- Regulations

Topical Index

U.S. Stocks of Wheat on Oct. 1, 1950

Note: By quarters, in bushels, 000's omitted. **Source: USDA**

State—	In interior mills, elevators and warehouses, Oct. 1 Average 1939-48	1949	1950	Merchant mills Oct. 1 1949	1950	Off farm total† Oct. 1 1949	1950	Wheat, total‡ all positions Oct. 1 1949	1950
New Eng.	244	*...	134	25	...	1,307	814	1,307	814
N. Y.	1,954	*...	*...	10,312	9,370	47,524	42,197	53,522	48,373
N. J.	131	133	177	*...	*...	1,697	1,194	2,673	2,160
Pa.	984	685	809	1,690	1,920	6,229	6,907	16,575	16,883
Ohio	3,321	5,612	8,570	8,488	8,460	21,033	24,958	44,434	43,385
Indiana	2,895	3,342	2,942	2,990	2,896	8,655	8,215	19,329	15,743
Illinois	2,895	3,967	3,152	6,013	5,287	28,559	22,908	37,447	29,127
Michigan	2,374	3,534	3,835	3,460	3,013	6,994	6,848	26,254	23,963
Wisconsin	418	285	*...	*...	*...	12,853	13,204	15,222	15,153
Minnesota	5,134	3,719	4,022	9,083	9,994	38,153	37,129	50,589	47,511
Iowa	1,322	*...	1,426	*...	2,163	11,913	10,343	14,270	11,814
Missouri	1,943	1,368	3,148	11,213	11,777	42,904	44,279	52,011	50,136
N. Dak.	31,330	27,619	29,883	2,746	1,531	30,365	31,414	167,258	124,440
S. Dak.	7,508	5,560	7,172	208	227	5,768	7,876	30,104	30,236
Nebraska	7,502	9,698	13,876	3,099	4,251	23,107	26,414	50,855	74,350
Kansas	29,520	52,612	64,618	21,655	25,200	118,992	140,707	186,317	206,608
Delaware	68	96	193	80	60	176	253	368	473
Maryland	466	288	526	679	*...	7,616	5,571	9,336	7,254
Virginia	408	912	870	1,162	1,200	2,336	2,326	5,829	5,864
W. Virginia	63	31	27	113	95	144	122	1,165	1,146
N. Carolina	268	197	242	1,663	125	1,260	367	3,516	2,882
S. Carolina	84	21	80	317	630	338	710	820	1,322
Georgia	57	54	113	186	235	240	348	810	1,057
Kentucky	1,031	787	366	4,000	3,450	6,215	5,296	7,005	6,256
Tennessee	717	727	*...	1,757	1,292	3,802	2,632	4,846	3,684
Alabama	26	*...	145	*...	*...	141	305	184	389
Mississippi	133	*...	10	*...	*...	24	17	103	61
Arkansas	32	9	*...	...	*...	9	*...	185	319
Louisiana	...	...	...	...	...	1,216	2,201	1,216	2,201
Oklahoma	9,970	23,158	21,569	8,247	9,288	57,857	61,298	83,387	69,124
Texas	11,051	36,794	20,433	12,571	12,939	68,219	52,692	91,874	57,651
Montana	13,630	14,631	17,822	3,333	3,110	17,964	20,932	58,334	87,287
Idaho	12,223	15,095	17,984	2,009	1,714	17,104	19,698	30,060	33,951
Wyoming	196	*...	977	*...	352	835	1,329	4,267	3,957
Colorado	3,806	8,397	11,933	2,694	2,639	12,170	15,364	36,450	30,544
N. Mexico	230	1,713	494	292	157	2,005	651	3,339	633
Arizona	133	115	668	226	275	341	944	481	1,084
Utah	1,160	2,020	1,800	3,441	3,032	7,961	7,535	14,003	11,823
Nevada	131	125	47	...	...	125	47	715	663
Washington	36,124	38,791	50,104	4,120	3,906	47,331	59,982	57,108	76,841
Oregon	12,761	12,300	15,700	2,300	2,274	18,396	24,428	25,357	30,724
California	3,526	2,696	4,767	1,271	1,799	4,109	6,826	7,091	10,602
Unallocated*	...	10,351	8,938	3,788	1,586	8,757	3,368	8,757	3,177
U. S.	207,695	287,432	319,564	134,731	136,247	692,544	720,649	1,164,753	1,191,865

*Unallocated—to avoid disclosing individual operations. †Includes, in addition to stocks in interior mills, elevators and warehouses and merchant mills, commercial stocks reported by Grain Branch, PMA, at terminals, and an estimate of those owned by Commodity Credit Corp. which are in transit in bins and other storages under CCC control. ‡Short-time average.

U.S. Stocks of Wheat on Jan. 1, 1951

Note: In bushels, 000's omitted. **Source: USDA**

State—	In interior mills, elevators and warehouses, Jan. 1 Average 1940-49	1950	1951	Merchant mills Jan. 1 1950	1951	Off farm total† Jan. 1 1950	1951	Wheat, total‡ all positions Jan. 1 1950	1951
New England.	238	*...	*...	18	*...	1,478	1,624	1,478	1,624
New York	1,852	*...	*...	8,142	8,625	52,307	43,172	57,011	48,332
New Jersey	108	121	*...	*...	*...	1,579	1,333	2,097	1,953
Pennsylvania	690	430	500	1,260	1,380	5,617	5,812	12,162	12,526
Ohio	2,252	4,928	6,410	*...	6,587	16,131	19,629	30,531	30,812
Indiana	1,874	1,852	1,901	2,510	2,528	5,830	6,179	10,528	9,359
Illinois	1,986	2,611	1,957	4,690	5,322	18,448	18,629	24,539	20,970
Michigan	2,033	3,006	2,967	3,435	2,767	6,441	5,734	21,499	17,600
Wisconsin	359	*...	*...	855	*...	7,985	15,711	9,522	17,121
Minnesota	4,499	3,592	4,081	7,821	11,711	28,928	40,542	36,815	48,709
Iowa	1,060	551	898	1,191	1,882	7,927	7,793	9,009	8,597
Missouri	1,287	1,627	2,066	10,594	11,779	35,428	37,881	39,982	40,823
No. Dakota	26,087	22,512	30,179	2,504	2,333	25,016	32,520	89,374	109,783
So. Dakota	6,356	4,900	6,480	*...	180	5,075	7,435	27,354	29,181
Nebraska	5,497	8,042	14,644	2,960	3,275	17,924	25,676	38,055	59,591
Kansas	23,337	47,515	60,960	21,606	24,496	111,284	133,507	158,904	174,461
Delaware	47	31	114	24	37	55	151	151	250
Maryland	304	125	*...	536	*...	5,218	4,687	6,181	5,235
Virginia	317	*...	714	830	860	1,659	1,669	3,842	3,635
W. Virginia	48	18	19	84	42	102	61	757	574
No. Carolina	182	134	142	647	828	781	970	2,028	2,275
So. Carolina	54	10	50	289	284	299	334	463	531
Georgia	54	18	50	105	142	123	192	328	439
Kentucky	680	604	334	3,000	2,470	4,474	4,511	4,764	4,706
Tennessee	505	*...	712	1,091	1,098	2,887	2,216	3,300	2,688
Alabama	16	9	*...	*...	*...	192	*...	219	*...
Mississippi	‡28	12	*...	*...	*...	24	21	50	34
Arkansas	29	6	*...	...	...	6	*...	76	*...
Louisiana	...	...	...	...	...	841	639	841	639
Oklahoma	7,566	21,034	20,335	7,429	8,478	50,927	58,767	61,574	62,256
Texas	8,622	30,046	17,838	12,248	12,150	58,930	45,720	69,974	47,651
Montana	10,980	11,544	13,639	2,630	3,751	14,174	17,402	46,214	63,441
Idaho	8,866	11,785	13,440	1,497	1,239	13,282	14,679	23,571	26,631
Wyoming	164	635	963	*...	279	929	1,242	3,361	4,361
Colorado	3,003	8,393	10,299	2,381	2,612	11,430	13,493	25,304	26,668
N. Mexico	203	1,438	420	*...	163	1,695	583	2,194	736
Arizona	96	92	192	208	176	300	368	384	469
Utah	934	1,650	1,500	2,427	2,863	5,677	6,628	9,925	10,392
Nevada	73	46	35	...	...	46	35	446	247
Washington	26,524	27,943	40,509	3,768	4,103	35,264	51,430	42,165	62,919
Oregon	9,630	9,400	13,500	2,004	2,090	14,842	22,840	19,119	26,868
California	2,723	2,073	4,519	1,168	1,118	3,446	6,193	5,052	8,517
Unallocated*	...	8,691	7,547	7,787	1,709	7,805	4,032	7,805	4,116
U. S.	161,159	237,424	279,914	117,739	129,357	582,006	662,040	908,948	997,710

*Unallocated—to avoid disclosing individual operations. †Includes, in addition to stocks in interior mills, elevators and warehouses and merchant mills, commercial stocks reported by Grain Branch, PMA, at terminals, and an estimate of those owned by Commodity Credit Corp. which are in transit and in bins and storage under CCC control. ‡Short-time average.

ginning with the nearest delivery month, not more than five delivery months may be traded in at any one time in the order stated." (Regulation 110, as amended Oct. 26, 1948.)

"Price fluctuations in contracts for millfeed for future delivery shall be in multiples of 5¢ per ton." (Rule 1070.)

San Francisco

All contracts, except car lot transactions as provided in rule X of the San Francisco Grain Exchange, made through the caller for the future delivery of inspected grain are known as "time contracts."

Deliveries of grain upon "time contracts" must be made in warehouses designated as "regular" or f.o.b. cars under the provisions of rule XIII, sec. 1, of the rules of the San Francisco Grain Exchange.

WHEAT

All purchases and sales of wheat on "time contracts" shall be on the basis of federal grades, in burlap bags, and subject to the grain exchange schedule of differentials, discounts and dockages in effect on the date contract is made.

Deliverable at contract price: No. 1 hard white wheat, No. 1 soft white.

Deliverable at discount, 5c per cental: No. 1 white club wheat, No. 1 western white.

BARLEY

Deliverable at contract price: No. 2 bright western barley (official grain standard of the United States, in making deliveries of which seller shall deliver barley of such test weight per bu as the board of directors shall determine during the month of June each year).

Deliverable at discount, 50c per ton: No. 2 western barley (season's standard test weight), No. 2 bright western (test weight 1 lb less than the season's standard test weight).

Deliverable at discount, $1 per ton: No. 2 western barley (test weight 1 lb less than the season's standard test weight).

On deliveries in fulfillment of all contracts effected prior to the adoption of any change in said test weight as promulgated by the board of directors, the seller shall deliver barley of such test weight as may have been in effect prior to any change, said contracts to be designated "old" when called after any test weight change, and contracts entered into subsequent to any test weight change to be designated "new."

Seattle

WHEAT

All sales and purchases on futures contracts shall be on basis bulk wheat, federal grades, subject to discounts and differentials applicable on futures contracts as adopted by the Seattle Grain Exchange.

Deliverable at contract price: No. 1 soft white wheat, No. 1 western white, No. 1 white club, No. 1 hard winter, No. 1 yellow hard winter, No. 1 northern spring, No. 1 red spring, No. 1 western red, No. 1 dark northern spring, No. 1 dark hard winter, No. 1 hard white.

No. 2 and No. 3 wheat shall be accepted on contract at the regular Seattle Grain Exchange discounts and differentials. Wheat taking a grade lower than No. 3 is not applicable on contract.

Sacked wheat, of the grades specified above, may be delivered on contracts at the differentials established by the Seattle Grain Exchange, in effect at the time of delivery.

Delivery on contracts may be tendered in cars at Auburn, Black River Junction, Interbay, or other established diversion points west of the Cascades; in regular warehouses or elevators at Seattle and Tacoma; also in elevators and warehouses at country points which have been declared regular by the board of trustees.

Winnipeg Average Wheat Prices

Note: Average daily closing prices of cash No. 1 northern wheat by months and crop years, in cents per bushel (fractions omitted). Source: Winnipeg Grain Exchange.

Crop of—	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	Av. of years
‡1950-51	160	160	160	160	160	160	160	160	160	160	160	160	160
*1949-50	175	175	175	175	175	175	175	175	175	175	175	175	175
*1948-49	175	175	175	175	175	175	175	175	175	175	175	175	175
*1947-48	175	175	175	175	175	175	175	175	175	175	175	175	175
*1946-47	175	175	175	175	175	175	175	175	175	175	175	175	175
*1945-46	175	175	175	175	175	175	175	175	175	175	175	175	175
†1944-45	143	143	143	143	143	143	143	143	143	143	143	143	143
†1943-44	137	137	137	137	137	137	137	137	137	137	137	137	137
1942-43	89	90	90	91	90	99	90	97	99	99	101	109	95
1941-42	73	73	74	73	74	77	78	78	79	79	80	81	77
1940-41	72	72	70	72	73	74	75	76	76	76	77	75	74
1939-40	55	74	70	71	83	83	84	87	89	90	72	71	77
1938-39	77	63	61	59	61	60	60	60	61	66	62	55	65
1937-38	132	134	142	135	137	149	145	138	138	115	114	98	131
1936-37	102	104	111	109	120	125	127	136	139	131	124	146	123
1935-36	84	90	91	86	85	85	82	82	80	77	79	93	84
1934-35	86	82	78	80	79	79	79	82	87	86	82	81	82
1933-34	73	67	61	64	60	67	65	66	66	71	77	82	68
1932-33	56	52	48	47	42	44	46	49	54	63	67	83	54

‡Initial price for crop 1950-51.

*The initial price to producers for the five-year period ending July 31, 1950, was increased to $1.75 bu. in February, 1949. The initial payment covers all wheat delivered to the Canadian Wheat Board since Aug. 1, 1945. Originally the initial price to producers was $1.35 bu. covering the five-year period of the Canada-U.K. wheat agreement. The $1.75 price does not include final participation certificate payments.

†Trading in wheat futures and cash wheat on the Winnipeg Grain Exchange was suspended as at the close, Sept. 27, 1943. On Sept. 28 the Dominion government announced the price of No. 1 northern fixed at a minimum of $1.25 bu. basis in store Fort William and Port Arthur. The above averages include final participation certificate payments.

Wheat Crop Distribution in Canada

Note: By crop years, August 1 to July 31, in bushels, 000's omitted. Source: Dominion Bureau of Statistics.

	1943-44	1944-45	1945-46	1946-47	1947-48	1948-49	1949-50†
Production	284,500	416,600	318,500	413,700	341,800	386,300	367,400
Carryover of wheat at July 31	594,600	356,500	258,100	73,600	86,100	77,700	102,400
Imports, wheat & wheat flour	400	400	100	.....	800	300	.....
Available for distribution	879,500	773,500	576,700	487,300	428,700	464,300	469,800
Domestic use—							
Human consumption	49,900	49,900	56,000	53,300	48,600	42,600	47,300
Animal feed and waste	92,500	85,700	66,000	74,300	74,200	49,600	47,600
Seed requirements	29,300	29,300	32,800	33,200	33,000	37,400	36,600
Industrial use (alcohol)	7,500	7,600	5,100	1,000	200	.....	.....
Remainder for export and carryover	700,300	601,000	416,800	325,500	272,700	334,700	338,300
Exports, wheat & wheat flour	343,800	342,900	343,200	239,400	195,000	232,300	225,100

†Preliminary.

U.S. Parity Wheat Prices, by Months

Note: By months and crop years in cents. **Source: USDA**

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mch.	Apr.	May	June
1950	221.0	223.0	225.0	227.0	229.0	231.0	235.0	210.0	....	....	....	....
1949	216.0	215.0	214.0	212.0	212.0	212.0	213.0	213.0	216.0	216.0	219.0	219.0
1948	222.0	222.0	221.0	220.0	219.0	219.0	219.0	217.0	217.0	217.0	217.0	217.0
1947	203.0	207.0	210.0	211.0	213.0	217.0	222.0	219.0	218.0	220.0	221.0	222.0
1946	176.0	180.0	177.0	183.0	187.0	188.0	190.0	196.0	201.0	203.0	202.0	203.0
1945	153.0	153.0	154.0	155.0	155.0	156.0	156.0	157.0	159.0	160.0	164.0	166.0
1944	150.0	150.0	150.0	150.0	151.0	151.0	152.0	152.0	153.0	153.0	153.0	153.0
1943	146.0	146.0	146.0	147.0	148.0	149.0	149.0	150.0	151.0	150.0	150.0	150.0
1942	134.4	134.4	135.3	136.1	137.0	137.9	139.7	141.4	142.3	143.2	144.1	145.0
1941	117.6	120.2	122.0	124.6	126.4	126.4	129.1	129.9	132.6	133.5	134.4	134.4
1940	112.3	112.3	112.3	112.3	112.3	113.2	113.2	113.2	114.0	114.0	114.9	116.7
1939	111.4	110.5	113.2	113.2	113.2	113.2	112.3	112.3	113.2	113.2	113.2	113.2
1938	113.2	112.3	112.3	112.3	112.3	111.4	111.4	111.4	111.4	113.4	111.4	111.4
1937	121.1	120.2	118.5	116.7	115.8	115.8	115.8	115.8	114.9	114.9	114.9	114.0
1936	113.2	114.9	115.8	115.8	115.8	116.7	118.5	120.2	120.2	121.1	121.1	121.1
1935	115.8	114.9	113.2	113.2	112.3	112.3	112.3	112.3	111.4	111.4	111.4	110.5

Computation of parity prices: Average price in base period (August, 1909, to July, 1914) × monthly index of prices paid by farmers, interest and taxes. Example: Base price of 88.4¢ × July, 1942, index of 165=146¢.

U.S. Wheat Stocks by Classes

Note: July 1, in million bushels.
Source: USDA

Class—	1946	1947	1948	1949	1950
Hard red winter	37	28	110	168	249
Soft red winter	11	8	16	13	31
Hard red spring	39	31	48	79	91
Durum	5	9	10	18	20
White	8	8	12	26	32
Totals	100	84	196	308	423

U.S. Supply and Distribution of Rye by Quarters

Note: By seasons and quarters, in bushels, 000's omitted. **Source: USDA**

Year and quarter	Stocks at beginning of period: Farm	Commercial	Interior mills	Total	Production	Imports‡	Total supply	Disappearance: Uses for alcohol	Milled for flour*	Feed	Seed	Exports‡	Total
1950-51—													
July-Sept.	1,974	5,900	1,664	9,538	22,977	1,052	33,567	1,767	1,353	2,171	2,300	439	8,030
Oct.-Dec.	12,852	7,694	4,991	25,537	....	1,267	26,804	2,245	1,246	1,635	2,300	397	7,823
Jan.-March	7,279	7,871	3,831	18,981	....	....	....	....	....	....	....	....	....
1949-50—													
July-Sept.	3,313	2,993	1,999	8,305	18,739	435	27,479	737	1,180	4,039	2,268	1,150	9,374
Oct.-Dec.	8,705	5,435	3,965	18,105	....	7,001	25,106	1,366	1,258	732	2,268	2,139	7,663
Jan.-March	4,803	9,338	3,302	17,443	....	65	17,508	1,416	1,111	302	262	1,231	4,322
April-June	3,332	7,321	2,533	13,186	....	1,406	14,592	1,443	1,165	1,024	132	1,290	5,054
Season	3,313	2,993	1,999	8,305	18,739	8,907	35,951	4,862	4,714	6,097	4,930	5,810	26,413
1948-49—													
July-Sept.	1,700	531	1,122	3,353	26,449	460	30,262	1,452	1,119	1,651	2,040	9	6,271
Oct.-Dec.	14,242	4,469	5,280	23,991	....	1,580	25,571	2,249	1,295	2,447	2,040	250	8,281
Jan.-March	8,749	4,749	3,891	17,290	....	1,044	18,334	1,725	1,257	2,375	236	2,836	8,429
April-June	5,495	2,075	2,335	9,905	....	3,710	13,615	1,289	1,070	496	119	2,336	5,310
Season	1,700	531	1,122	3,353	26,449	6,794	36,596	6,715	4,741	6,969	4,435	5,431	28,291
1947-48—													
July-Sept.	600	1,024	722	2,346	25,975	29	28,350	1,376	1,138	1,678	2,335	196	6,723
Oct.-Dec.	13,475	3,824	4,328	21,627	....	12	21,639	605	1,267	1,798	2,335	1,200	7,205
Jan.-March	7,200	4,072	3,162	14,434	....	0	14,434	2,242	1,340	1,706	271	739	6,298
April-June	4,436	1,521	2,179	8,136	....	0	8,136	2,366	1,217	953	135	112	4,783
Season	600	1,024	722	2,346	25,975	41	29,362	6,589	4,962	6,135	5,076	2,247	25,009
1946-47—													
July-Sept.	1,150	322	905	2,377	18,879	41	21,301	500	1,306	3,995	2,253	79	8,133
Oct.-Dec.	9,329	1,126	2,213	13,168	....	820	13,988	907	1,170	1,028	2,253	126	5,484
Jan.-March	4,000	2,476	2,028	8,504	....	457	8,961	1,573	1,163	881	261	....	3,878
April-June	1,700	2,139	1,244	5,083	....	319	5,402	1,255	858	445	130	368	3,056
Season	1,150	322	905	2,377	18,879	1,641	22,897	4,235	4,497	6,349	4,897	573	20,551

*Calculated from trade sources, 1944-45; from Bureau of Census 1945 to date. ‡Grain only.

Canadian Wheat Carry-Over

Note: In bushels, 000's omitted. Source: Dominion Bureau of Statistics.

	Production	Carry-over
1950*	461,730	113,232
1949	367,406	102,441
1948	393,345	77,710
1947	336,758	87,367
1946	420,725	73,600
1945	305,912	258,072
1944	435,535	356,176
1943	283,660	594,626
1942	592,684	423,752
1941	302,626	480,129
1940	551,390	300,473
1939	520,623	102,910
1938	360,010	24,535
1937	182,410	37,048
1936	216,740	127,362
1935	277,339	213,552
1934	275,849	202,902
1933	281,892	217,657
1932	443,061	135,941
1931	321,325	138,597
1930	420,672	126,582
1929	304,520	127,239
1928	566,726	91,156
1927	479,665	55,621
1926	407,136	40,139
1925	395,475	30,741

*Preliminary.

Canadian Inspection Charges

Fees chargeable under the Canada Grain Act for the inspection and weighing of grain:

Western Division — Inspection: Carload lots, $2 a car; cargoes, $2 1,000 bu. Weighing: Carload lots, $1 a car; cargoes, $1 1,000 bu.

Eastern Division — Inspection: Carload lots, $2 a car; cargoes, $2 1,000 bu. Weighing: Carload lots, 60¢ a car. Truck load lots, 25¢ a truck. Cargoes, $1 an hour for each employee engaged in such work.

Definitions and Standards of Identity for Corn Products

Regulations fixing and establishing definitions and standards of identity for corn products became effective Aug. 11, 1947. These regulations were published in the Federal Register May 13, 1947, as 12 F. R. 3110-12, under Title 21, Food and Drugs, Chapter I, Food and Drug Administration, Federal Security Agency (Docket No. FDC-447), Part 15. Copies of the regulation may be obtained from the Food and Drug Administration, Washington, D. C.

Standards of identity are fixed in the order for the following products: white corn meal, yellow corn meal, bolted white corn meal, bolted yellow corn meal, degerminated white corn meal, degermed white corn meal, degerminated yellow corn meal, degermed yellow corn meal, self-rising white corn meal, self-rising yellow corn meal, white corn flour, yellow corn flour, grits, corn grits, hominy grits, yellow grits, yellow corn grits, yellow hominy grits, quick grits, quick cooking grits, enriched corn meal and enriched corn grits.

With the establishment of the standards for enriched corn products the minimum and maximum quantities of vitamins and iron enrichment required are uniformly established for all the states.

Carryover Stocks of Canadian Grains

Note: In Canada and U.S. at close of crop years, in bushels. Source: Dominion Bureau of Statistics.

	Wheat	Oats	Barley	Flaxseed	Rye
1950*	113,232,673	44,334,631	20,391,991	4,475,875	6,606,262
1949	102,411,241	60,596,604	29,669,143	10,692,153	11,917,893
1948	77,710,410	47,891,059	31,449,460	2,371,226	903,746
1947	87,366,657	69,950,055	28,112,331	799,929	788,172
1946	73,600,209	77,491,528	29,937,099	1,649,218	768,149
1945	258,072,830	98,255,162	28,919,181	2,932,111	2,022,933
1944	356,521,979	108,543,320	45,873,970	3,649,125	5,576,061
1943	594,626,019	149,324,136	69,253,707	3,740,121	15,277,088
1942	423,752,337	28,607,188	10,821,462	1,027,040	3,353,393
1941	480,129,311	41,563,379	10,842,658	620,313	4,919,122
1940	300,473,466	46,931,028	12,853,876	543,307	5,351,661
1939	102,910,853	48,887,155	12,804,186	118,832	3,921,434
1938	24,535,858	19,498,653	6,630,934	219,027	1,000,576
1937	37,048,839	18,266,043	4,796,213	464,967	402,864
1936	127,362,598	40,379,860	10,234,224	269,287	3,685,252
1935	213,852,118	26,470,703	6,018,787	312,979	3,165,715
1934	202,902,177	31,060,497	11,092,039	471,295	4,050,237
1933	217,657,066	42,044,758	11,238,322	1,179,576	6,006,488
1932	135,941,347	29,849,319	7,195,855	1,321,358	5,766,334

*Preliminary.

DANIEL F. RICE AND COMPANY

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U.S. Grain Standards for Corn

United States grain standards for corn, effective Jan. 20, 1937 (revised October, 1940) as promulgated by the Department of Agriculture:

Corn shall be any grain which consists of 50% or more of shelled corn of the dent or flint varieties, and may contain not more than 10% of other grains for which standards have been established under the provisions of the United States Grain Standards Act. (The specifications of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug and Cosmetic Act.)

Classes.—Corn shall be divided into three classes, as follows: class I, yellow corn; class II, white corn, and class III, mixed corn.

YELLOW CORN (CLASS I)

This class shall include yellow corn, and may include not more than 5% of corn of other colors. A slight tinge of red on kernels of corn otherwise yellow shall not affect their classification as yellow corn.

WHITE CORN (CLASS II)

This class shall include white corn, and may include not more than 2% of corn of other colors. A slight tinge of light straw color or of pink on kernels of corn otherwise white shall not affect their classification as white corn.

MIXED CORN (CLASS III)

This class shall consist of corn of various colors that does not meet the color requirements for either of the classes yellow corn or white corn. White-capped yellow kernels shall be classified as mixed corn.

GRADES

Corn shall be graded and designated according to the respective grade requirements of the numerical grades and sample grade of its appropriate class, and according to the special grades when applicable.

FLINT CORN

Definition.—Flint corn shall be corn of any class which consists of 95% or more of corn of any of the flint varieties.

Grades.—Flint corn shall be graded and designated according to the grade requirements of the standards applicable to such corn if it were not flint corn, and the word "flint" shall be added to, and made a part of, the grade designation, immediately following the words yellow corn, or white corn or mixed corn, as the case may be.

FLINT AND DENT CORN

Definition.—Flint and dent corn shall be corn of any class which consists of a mixture of the flint and dent varieties and which contains more than 5%, but less than 95%, of corn of any of the flint varieties.

Grades.—Flint and dent corn shall be graded and designated according to the grade requirements of the standards applicable to such corn if it were not flint and dent corn, and the words "flint and dent" shall be added to, and made a part of, the grade designation, immediately following the words yellow corn, or white corn, or mixed corn, as the case may be.

WEEVILY CORN

Definition.—Weevily corn shall be corn that is infested with live weevils or other insects injurious to stored grain.

Grades.—Weevily corn shall be graded and designated according to the grade requirements of the standards applicable to such corn if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily."

DEFINITIONS

Basis of Grade Determinations.—Each determination of class, variety, damage, and heat damage, shall be upon the basis of the grain after the removal of the cracked corn and foreign material. All other determinations shall be upon the basis of the grain as a whole.

Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of Moisture.—Percentage of moisture shall be that ascertained by the water oven and the method of use thereof described in Service and Regulatory Announcements No. 147, of the Agricultural Marketing Service of the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

Test Weight per Bushel.—Test weight per bushel shall be the weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 1065, dated May 13, 1922, issued by the United States Department of Agriculture, or as determined by any device and method which give equivalent results in the determination of test weight per bushel.

Cracked Corn and Foreign Material.—Cracked corn and foreign material shall include kernels and pieces of kernels of corn and all matter other than corn which will pass through a No. 12 sieve, and all matter other than corn remaining on such sieve after screening.

No. 12 Sieve.—A metal sieve perforated with round holes 12/64 inch in diameter.

Other Grains.—Other grains shall include wheat, rye, oats, grain sorghums, barley, hull-less barley, flaxseed, emmer, spelt, einkorn, Polish wheat, poulard wheat, cultivated buckwheat, sweet corn, popcorn and soybeans.

Damaged Kernels.—Damaged kernels shall be kernels and pieces of kernels of corn which are heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise materially damaged.

Heat - Damaged Kernels.—Heat - damaged kernels shall be kernels and pieces of kernels of corn which have been materially discolored and damaged by external heat or as a result of heating caused by fermentation.

GRADE REQUIREMENTS—YELLOW, WHITE, MIXED CORN

	Grade No.				
	1	2	3	4	5
Minimum test weight, per bu, lbs	54	52	51	48	44
Maximum limits of—Moisture, %	14	15.5	17.5	20	23
Cracked corn and foreign material, %	2	3	4	5	7
Damaged kernels—					
Total, %	3	5	7	10	15
Heat damaged, %	0.1	0.2	0.5	1	3

Sample Grade.—Sample grade shall include corn of the class yellow corn, or white corn, or mixed corn, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive; or which contains stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor; or which is otherwise of distinctly low quality.

Wheat Prices: Minneapolis, St. Louis, Kansas City

Note: In cents per bushel. **Source: USDA**

NO. 1 NORTHERN SPRING, MINNEAPOLIS

Year beginning July—	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mch.	Apr.	May	June	Weighted average*
1950	253	246	242	237	239	246	249	..	..	..	..	..	..
1949	238	228	237	243	240	238	237	233	236	237	245	245	238
1948	243	232	235	239	247	240	235	234	235	234	233	237	237
1947	294	271	284	317	323	316	320	277	267	267	262	260	280
1946	222	206	210	220	233	226	225	231	272	264	268	272	237
1945†	172	171	169	173	173	173	174	175	177	177	181	190	175
1944†	162	154	154	161	164	164	167	168	169	169	170	172	165
1943†	141	141	143	149	155	163	167	167	167	168	167	163	158
1942†	114	113	119	119	120	132	139	141	144	141	142	141	129
1941†	100	106	113	110	114	123	128	125	124	119	120	114	110
1940†	79	74	82	88	89	88	90	85	90	95	98	101	90
1939†	78	76	93	88	91	103	105	104	104	108	101	82	97
1938†	88	78	76	73	73	77	80	78	77	78	86	84	79
1937†	151	133	134	127	115	120	127	126	119	111	105	105	128
1936†	136	147	146	148	144	159	166	159	153	156	146	145	147
1935†	113	127	133	134	128	128	133	131	124	123	114	124	126
1934†	108	120	121	115	114	117	118	115	113	119	116	105	116
1933	108	94	90	85	86	83	88	90	88	83	94	103	91
1932	57	58	58	54	49	48	50	49	53	63	74	80	61
1931	61	65	69	71	80	73	75	75	70	71	68	60	71

NO. 2 RED WINTER, ST. LOUIS

1950	219	216	214	213	220	233	246	..	..	..	..	..	..
1949	187	186	201	208	211	220	232	216	229	233	233	216	214
1948	225	216	226	226	236	244	229	229	233	237	234	183	226
1947	237	238	270	295	302	309	312	287	254	255	244	232	270
1946	211	203	208	214	225	232	233	240	281	275	271	259	238
1945	167	168	171	178	..	..	..	..	..	..	..	194	176
1944	157	155	158	170	171	174	176	176	..	..	181	176	..
1943	166	169	172	176	167	162	..	..	..	..	..	161	168
1942	122	126	133	138	132	148	154	155	..	152	158	160	134
1941	103	108	116	113	117	127	124	121	120	121	120	119	110
1940	76	77	83	90	92	91	93	86	90	93	97	102	82
1939	69	69	88	88	92	104	105	106	106	111	104	87	75
1938	69	66	67	69	66	70	73	73	73	76	83	73	70
1937	122	112	109	104	93	95	100	99	92	85	77	75	113
1936	106	117	119	121	123	135	140	143	143	144	132	122	111
1935	87	92	103	110	105	106	109	109	108	107	102	95	95
1934	92	101	104	100	101	104	102	98	95	97	93	86	94
1933	101	92	89	86	90	87	91	91	89	83	87	91	94
1932	47	53	54	50	47	46	50	49	55	69	81	82	55
1931	48	47	47	52	62	57	57	57	55	57	56	49	52

NO. 2 HARD WINTER, KANSAS CITY

1950	223	221	221	218	224	235	240	..	..	..	..	..	..
1949	200	206	215	219	220	222	222	222	227	231	230	217	219
1948	219	215	220	225	228	229	225	220	224	226	222	195	221
1947	229	232	265	295	300	301	303	251	245	245	240	229	261
1946	194	196	196	204	210	207	209	226	269	268	269	237	223
1945	158	160	162	168	169	169	169	169	172	172	..	186	169
1944	152	151	153	161	159	162	164	166	166	166	167	168	161
1943	140	140	147	152	156	163	165	163	165	164	163	156	156
1942	108	111	120	121	123	131	137	138	140	138	139	138	126
1941	98	107	114	112	113	120	126	123	121	115	115	111	112
1940	71	69	76	82	85	84	85	78	85	87	90	97	82
1939	67	66	86	83	86	98	101	99	102	106	95	76	74
1938	70	66	66	65	63	67	71	69	69	70	76	71	70
1937	122	112	110	106	94	96	103	100	92	85	80	77	111
1936	111	122	122	122	122	134	138	137	139	140	132	121	121
1935	99	104	115	119	113	111	113	110	106	102	95	96	105
1934	93	107	108	102	102	104	101	100	97	105	99	88	98
1933	98	90	87	83	84	80	84	85	82	78	86	89	88
1932	45	48	48	45	43	42	44	44	48	60	70	76	51
1931	44	43	43	48	59	52	53	54	51	53	54	46	47

*Average of daily prices weighted to carlot sales. †No. 1 dark northern spring.

Chicago Oat Prices

Note: High and low, in cents per bushel for contract grades and better. Source: Chicago Board of Trade.

	Lowest	Range	Highest
1950	January	72½ @ 105½	December
1949	July	58½ @ 92	January
1948	August	70 @ 153½	January
1947	January	80½ @ 139	December
1946	July	74 @ 105	July
1945	August	58¾ @ 87	December
1944	September	60 @ 87¾	January
1943	January	56 @ 89	November
1942	July	44 @ 62½	January
1941	July	33 @ 58¾	December
1940	August	28 @ 46	April
1939	July	26 @ 43½	December

U.S. Grain Standards for Wheat

United States grain standards for wheat, effective Oct. 1, 1937, as promulgated by the Department of Agriculture:

Wheat.—Wheat shall be any grain which, before the removal of dockage, consists of 50% or more of wheat and not more than 10% of other grains for which standards have been established under the provisions of the United States Grain Standards Act, and which, after the removal of dockage, contains not more than 50% of broken kernels of grain of any size. The term wheat in these standards shall not include emmer, spelt, einkorn, Polish wheat and poulard wheat.

(The specifications of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug and Cosmetic Act.)

Classes—Wheat shall be divided into seven classes, as follows: Class I, hard red spring wheat; Class II, durum wheat; Class III, red durum wheat; Class IV, hard red winter wheat; Class V, soft red winter wheat; Class VI, white wheat; and Class VII, mixed wheat.

Grades.—Wheat shall be graded and designated according to the respective grade requirements of the numerical grades and sample grade of its appropriate class or subclass, and according to the special grades when applicable.

HARD RED SPRING WHEAT (CLASS I)

This class shall include all varieties of hard red spring wheat, and may include not more than 10% of wheats of other classes. This class shall be divided into three subclasses, as follows:

Subclass (A) Dark Northern Spring

This subclass shall include wheat of the class hard red spring wheat, consisting of 75% or more of dark, hard and vitreous kernels. This subclass shall not include more than 10% of wheat of the variety Humpback.

Subclass (B) Northern Spring

This subclass shall include wheat of the class hard red spring wheat, consisting of more than 25% but less than 75% of dark, hard and vitreous kernels. This subclass shall not include more than 10% of wheat of the variety Humpback.

Subclass (C) Red Spring

This subclass shall include wheat of the class hard red spring wheat, consisting of not more than 25% of dark, hard, and vitreous kernels. This subclass shall also include wheat of the class hard red spring wheat consisting of more than 10% of the variety Humpback.

DURUM WHEAT (CLASS II)

This class shall include all varieties of common durum wheat, and may include not more than 10% of wheats of other classes. This class shall be divided into three subclasses, as follows:

Subclass (A) Hard Amber Durum

This subclass shall include wheat of the class durum wheat, consisting of 75% or more of hard and vitreous kernels of amber color.

Subclass (B) Amber Durum

This subclass shall include wheat of the class durum wheat, consisting of 60% or more but less than 75% of hard and vitreous kernels of amber color.

Subclass (C) Durum

This subclass shall include wheat of the class durum wheat, consisting of less than 60% of hard and vitreous kernels of amber color.

RED DURUM WHEAT (CLASS III)

This class shall include all varieties of red durum wheat, and may include not more than 10% of wheats of other classes.

HARD RED WINTER WHEAT (CLASS IV)

This class shall include all varieties of hard red winter wheat, and may include not more than 10% of wheats of other classes. This class shall be divided into three subclasses, as follows:

Subclass (A) Dark Hard Winter

This subclass shall include wheat of the class hard red winter wheat consisting of 75% or more of dark, hard and vitreous kernels.

Subclass (B) Hard Winter

This subclass shall include wheat of the class hard red winter wheat consisting of more than 25% but less than 75% of dark, hard and vitreous kernels.

Subclass (C) Yellow Hard Winter

This subclass shall include wheat of the class hard red winter wheat consisting of not more than 25% of dark, hard and vitreous kernels.

SOFT RED WINTER WHEAT (CLASS V)

This class shall include all varieties of soft red winter wheat and may include not more than 10% of wheats of other classes. This class shall be divided into two subclasses, as follows:

Subclass (A) Red Winter

This subclass shall include wheat of the class soft red winter wheat consisting of both light and dark colored kernels. This subclass shall not include more than 10% of soft red winter wheat grown west of the Great Plains area of the United States.

Subclass (B) Western Red

This subclass shall include wheat of the class soft red winter wheat consisting of more than 10% of wheat of this class grown west of the Great Plains area of the United States.

WHITE WHEAT (CLASS VI)

This class shall include all varieties of white wheat, whether winter or spring grown, and may include not more than 10% of wheats of other classes. This class shall be divided into four subclasses, as follows:

Subclass (A) Hard White

This subclass shall include all wheat of the class white wheat consisting of 75% or more of hard (not soft and chalky) kernels. This subclass shall not include more than 10% of Sonora wheat or wheat of the white club varieties, either singly or in any combination.

Subclass (B) Soft White

This subclass shall include wheat of the class white wheat consisting of less than 75% of hard (not soft and chalky) kernels. This subclass shall not include more than 10% of Sonora wheat or wheat of the white club varieties, either singly or in any combination.

Subclass (C) White Club

This subclass shall include wheat of the class white wheat consisting of Sonora wheat or wheat of the white club varieties, either singly or in any combination. This subclass shall not include more than 10% of common white wheat other than Sonora, either singly or in any combination.

Subclass (D) Western White

This subclass shall include wheat of the class white wheat, which contains more than 10% of Sonora wheat or wheat of the white club varieties, either singly or in any combination, and which also contains more than 10% of common white wheat other than Sonora.

MIXED WHEAT (CLASS VII)

This class shall include all mixtures of wheat not provided for in the classes from I to VI, inclusive.

Grade Requirements and Designations.—Mixed wheat shall be graded according to the numerical and sample grade requirements of the class of wheat which predominates in the mixture, except that the grade specifications for the factor "wheats of other classes" and the grade specifications for "No. 1 heavy" in the standards for hard red spring wheat, shall be disregarded.

The grade designation for mixed wheat shall be stated as provided in paragraph (a), (b) or (c) of this section:

CLASS I—HARD RED SPRING WHEAT

Grade requirements for (a) dark northern spring, (b) northern spring, (c) red spring.

	Grade No.					
	†*1 heavy	†1	†2	3	4	5
Minimum test weight per bu, lbs	60	58	57	55	53	50
Maximum limits of—						
Damaged kernels (wheat and other grains)—Total, %	2	2	4	7	10	15
Heat-damaged, %	0.1	0.1	0.2	0.5	1.0	3.0
Foreign material—Total, %	1	1	2	3	5	7
Matter except other grains, %	0.5	0.5	1.0	2.0	3.0	5.0
Wheats of other classes—Total, %	5	5	10	10	10	10
Durum and/or red durum, %	2	2	3	5	10	10

Sample Grade.—Sample grade shall include wheat of the subclass dark northern spring, or northern spring, or red spring, which does not come within the requirements of any of the grades from No. 1 heavy to No. 5, inclusive; or which contains more than 16% of moisture; or which contains inseparable stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.

*Applies to each of the subclasses dark northern spring, northern spring and red spring.

†The wheat in grades No. 1 heavy and No. 1 of this class may contain not more than 7%, and the wheat in grade No. 2 of this class may contain not more than 10%, of shrunken and/or broken kernels of grain and other matter that will pass through a 20-gage metal sieve with slotted perforations 0.064 inch wide by ¾ inch long.

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(a) Except as specified in paragraphs (b) and (c) of this section, the grade designation for mixed wheat shall include successively, in the order named, (1) the number of the grade or the words "sample grade," as the case may be, (2) the words "mixed wheat," and (3) the name and approximate percentage of each class of wheat which constitutes more than 10% of the mixture in the order of its predominance; but if only one class exceeds 10% of the mixture, the name and approximate percentage of that class shall be included in the grade designation, followed by the name and approximate percentage of at least one other class.

(b) Amber Mixed Durum.—Amber mixed durum shall be mixed wheat consisting of a mixture of durum and other wheats, which contains not more than a total of 15% of wheats other than common durum and which contains not less than 60% of durum kernels that are hard and vitreous and of amber color. Amber mixed durum may contain not more than 5% of red durum, white and soft red winter wheat, singly or combined.

The grade designation for amber mixed durum shall include successively, in the order named, (1) the number of the grade or the words "sample grade," as the case may be, and (2) the words "amber mixed durum."

(c) Mixed Durum.—Mixed durum shall be mixed wheat consisting of a mixture of durum and other wheats, which contains not more than a total of 20% of wheats other than common durum. Mixed durum may contain not more than 5% of red durum wheat, and may contain not more than 5% of white and soft red winter wheat, singly or combined.

The grade designation for mixed durum shall include successively, in the order named, (1) the number of the grade or the words "sample grade," as the case may be, and (2) the words "mixed durum."

CLASS II—DURUM WHEAT, AND CLASS III, RED DURUM WHEAT

Grade requirements for the subclasses (a) hard amber durum, (b) amber durum, and (c) durum, of the class durum wheat, and for the class red durum wheat.

	Grade No.				
	‡1	‡2	‡3	4	5
Minimum test weight per bu, lbs	60	58	56	54	51
Maximum limits of—					
Damaged kernels (wheat and other grains)—Total, %	2	4	7	10	15
Heat damaged, %	0.1	0.2	0.5	1.0	3.0
Foreign material—Total, %	1	2	3	5	7
Matter except other grains, %	0.5	1.0	2.0	3.0	5.0
Wheats of other classes—Total, %	†5	10	10	10	10
Soft red winter, white and red durum, singly or combined*, %	3	5	10	10	10

Sample Grade.—Sample grade shall include wheat of the subclass hard amber durum, or amber durum, or durum, or wheat of the class red durum wheat, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive; or which contains more than 16% moisture; or which contains inseparable stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.

*These specifications do not apply to the class red durum wheat, or to the subclass durum. †No. 1 red durum may contain 10% of wheats of other classes.

‡The wheat in grades No. 1 and No. 2 of each of these classes may contain not more than either (a) 7% of shrunken and/or broken kernels of grain and other matter that will pass through a 20-gage metal sieve with slotted perforations 0.064 inch wide by ¾ inch long, or (b) 10% of all such material that will pass through said sieve together with broken kernels of grain of any size which remain on said sieve; and the wheat in grade No. 3 of each of these classes may contain not more than either (a) 10% of shrunken and/or broken kernels of grain and other matter that will pass through said sieve, or (b) 15% of all such material that will pass through said sieve together with the broken kernels of grain of any size which remain on said sieve.

CLASS IV—HARD RED WINTER WHEAT

Grade requirements for (a) hard dark winter, (b) hard winter, (c) yellow hard winter.

	Grade No.				
	*1	*2	*3	4	5
Minimum test weight per bu, lbs	60	58	56	54	51
Maximum limits of—					
Damaged kernels (wheat and other grains)—Total, %	2	4	7	10	15
Heat damaged, %	0.1	0.2	0.5	1.0	3.0
Foreign material—Total, %	1	2	3	5	7
Matter except other grains, %	0.5	1.0	2.0	3.0	5.0
Wheats of other classes—Total, %	5	10	10	10	10
Durum and/or red durum, %	1	2	3	10	10

Sample Grade.—Sample grade shall include wheat of the subclass dark hard winter, or hard winter, or yellow hard winter, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive; or which contains more than 15.5% of moisture; or which contains inseparable stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.

*The wheat in grades No. 1 and No. 2 of this class may contain not more than 7%, and the wheat in grade No. 3 of this class may contain not more than 10%, of shrunken and/or broken kernels of grain and other matter that will pass through a 20-gage metal sieve with slotted perforations 0.064 inch wide by ¾ inch long.

CLASS V—SOFT RED WINTER WHEAT

Grade requirements for (a) red winter, (b) western red.

	Grade No.				
	*1	*2	*3	4	5
Minimum test weight per bu, lbs	60	58	56	54	51
Maximum limits of—					
Damaged kernels (wheat and other grains)—Total, %	2	4	7	10	15
Heat damaged, %	0.1	0.2	0.5	1.0	3.0
Foreign material—Total, %	1	2	3	5	7
Matter except other grains, %	0.5	1.0	2.0	3.0	5.0
Wheats of other classes—Total, %	5	10	10	10	10
Durum and/or red durum, %	0.5	1.0	2.0	3.0	10.0

Sample Grade.—Sample grade shall include wheat of the subclass red winter, or western red, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive; or which contains more than 15.5% of moisture; or which contains inseparable stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.

*The wheat in grades No. 1 and No. 2 of this class may contain not more than 7%, and the wheat in grade No. 3 of this class may contain not more than 10%, of shrunken and/or broken kernels of grain and other matter that will pass through a 20-gage metal sieve with slotted perforations 0.064 inch wide by ¾ inch long.

CLASS VI—WHITE WHEAT

Grade requirements for (a) hard white, (b) soft white, (c) white club, (d) western white.

	Grade No.				
	*1	*2	*3	4	5
Minimum test weight per bu, lbs	60	58	56	54	51
Maximum limits of—					
Damaged kernels (wheat and other grains)—Total, %	2	4	7	10	15
Heat damaged, %	0.1	0.2	0.5	1.0	3.0
Foreign material—Total, %	1	2	3	5	7
Matter except other grains, %	0.5	1.0	2.0	3.0	5.0
Wheats of other classes—Total, %	5	10	10	10	10
Durum and/or red durum, %	0.5	1.0	2.0	10.0	10.0

Sample Grade.—Sample grade shall include wheat of the subclass hard white, or soft white, or white club, or western white, which does not come within the requirements of any of the grades from No. 1 to No. 5, inclusive; or which contains more than 15.5% of moisture; or which contains inseparable stones and/or cinders; or which is musty, or sour, or heating, or hot; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.

*The wheat in grades No. 1 and No. 2 of this class may contain not more than 7%, and the wheat in grade No. 3 of this class may contain not more than 10%, of shrunken and/or broken kernels of grain and other matter that will pass through a 20-gage metal sieve with slotted perforation 0.064 inch wide by ¾ inch long.

DOCKAGE

Dockage includes weed seeds, weed stems, chaff, straw, grain other than wheat, sand, dirt and any other foreign material, which can be removed readily from the wheat by the use of appropriate sieves and cleaning devices; also undeveloped, shriveled and small pieces of wheat kernels removed in properly separating the foreign material, and which cannot be recovered by properly rescreening or recleaning.

The quantity of dockage shall be calculated in terms of percentage based on the total weight of the grain including the dockage. The percentage of dockage so calculated, when equal to 1% or more, shall be stated in terms of whole per cent, and when less than 1% shall not be stated. A fraction of a per cent shall be disregarded. The word "dockage," together with the percentage thereof, shall be added to the grade designation.

U.S. Grain Stocks on Farms

Note: Stocks on first of month specified, in bushels, 000's omitted.

Source: USDA

	Jan.	April	July	Oct.
Wheat—				
1951.	335,670	.....	.....	.....
1950.	326,942	199,169	64,660	471,216
1949.	391,379	246,024	67,172	472,209
1948.	428,600	256,986	94,511	546,151
1947.	365,794	139,851	40,477	610,300
1946.	361,031	198,481	41,606	551,669
1945.	390,990	238,386	89,405	517,823
1944.	382,726	219,679	103,742	532,270
1943.	494,662	325,387	188,675	523,816
1942.	372,809	269,145	163,700	644,146
1941.	280,840	193,244	87,366	488,311
1940.	234,514	153,776	83,146	369,447
1939.	280,088	189,090	90,838	332,213
1938.	208,510	124,652	59,113	401,411
Corn—				
1951.	2,160,548	.....	.....	.....
1950.	2,405,778	1,634,182	1,058,468	485,372
1949.	2,547,912	1,797,522	1,256,166	708,443
1948.	2,506,283	1,842,608	1,323,006	114,035
1947.	2,136,640	1,276,329	677,375	254,210
1946.	1,858,960	1,032,856	496,928	153,003
1945.	2,123,101	1,325,152	738,591	303,138
1944.	1,968,522	1,093,080	561,181	206,621
1943.	2,277,332	1,374,748	799,235	359,313
1942.	2,016,404	1,289,588	761,363	423,758
1941.	1,837,512	1,199,139	754,464	474,622
1940.	1,914,184	1,273,015	853,223	548,625
1939.	1,819,710	1,204,229	836,921	546,052
1938.	1,673,221	1,071,120	642,922	353,194
Oats—				
1951.	907,660	.....	.....	.....
1950.	824,510	481,216	190,855	1,180,466
1949.	928,377	578,832	270,501	1,053,296
1948.	733,303	405,082	169,707	1,187,541
1947.	892,282	532,895	257,099	964,340
1946.	976,631	571,372	274,862	1,147,713
1945.	742,633	426,438	209,400	1,277,410
1944.	704,811	415,576	185,293	950,861
1943.	887,575	504,869	235,060	930,126
1942.	751,428	432,020	192,398	1,132,933
1941.	795,448	471,145	220,048	952,329
1940.	593,861	345,664	143,488	1,026,452
1939.	695,695	408,543	184,877	762,506
1938.	698,431	421,840	196,065	854,323

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Grain Elevator Storage Capacity

Elevators at Centers

	No. of elevators	Capacity, bu.
Minneapolis, Minn.	69	93,224,000
Chicago, Ill.	35	53,664,000
Duluth, Minn.	23	54,975,000
Albany, N. Y.	1	13,500,000
New York, N. Y.	3	4,450,000
Buffalo, N. Y.	35	53,808,000
Kansas City, Mo.	33	62,897,000
Detroit, Mich.	6	2,600,000
Indianapolis, Ind.	8	16,050,000
Toledo, Ohio	15	14,739,000
Cincinnati, Ohio	9	6,160,000
Cleveland, Ohio	6	895,000
St. Louis, Mo.	36	23,850,000
New Orleans, La.	2	2,872,000
San Francisco and near-by points	17	*294,000
	1	2,250,000
Seattle, Wash.	8	6,725,000
		‡1,230,000
Portland, Oregon	15	246,300
Tacoma, Wash.	4	1466,000
		2,210,000
Baltimore, Md.	5	13,750,000
Boston, Mass.	3	2,500,000
Omaha, Neb.	20	28,885,000
St. Joseph, Mo.	13	10,977,000
Milwaukee, Wis.	20	40,170,000
Philadelphia, Pa.	4	5,565,000
Galveston, Texas	3	7,365,000
Houston, Texas	..	5,000,000
Port Arthur, Texas	..	500,000
Nashville, Tenn.	14	2,538,400
Memphis, Tenn.	9	4,000,000
Norfolk, Va.	2	750,000
Ft. Worth, Texas	13	27,800,000
Evansville, Ind.	5	2,075,000
Enid, Okla.	13	43,389,000
Wichita, Kansas	13	24,830,000
Hutchinson, Kansas	14	22,070,000
CANADA		
Fort William and Port Arthur, Ont.		92,202,210
Montreal, Que.		15,912,000
Port Colborne, Ont.		6,250,000
Port McNicoll, Ont.		6,500,000
Vancouver, B. C.		19,318,500
New Westminster, B. C.		1,121,110
Victoria, B. C.		1,008,000
Collingwood, Ont.		2,000,000
Goderich, Ont.		3,600,000
Midland, Ont.		12,300,000
Halifax, N. S.		2,200,000
Sarnia, Ont.		3,000,000
Kingston, Ont		2,350,000
Owen Sound, Ont.		4,000,000
Prescott, Ont.		5,500,000
Quebec, Que.		*4,000,000
Toronto, Ont		4,000,000
St. Boniface, Man.		2,086,000
Three Rivers, Que.		2,000,000
Winnipeg, Man.		2,411,000
Transconia, Man.		1,800,000
North Transconia, Man.		1,000,000
Sorel, Que.		3,000,000

*Capacity in tons for sacked grain. ‡Capacity in bushels for sacked grain.

Baltimore

Note: In bushels. Source: Baltimore Chamber of Commerce.

Locust Point—B. & O. R. R.	4,000,000
Canton—Pennsylvania R. R. Co.	4,250,000
Port Covington—W. Maryland Ry.	4,000,000
2 Miscellaneous	500,000
Total, bus	12,750,000

Boston

Note: In bushels. Source: Boston Grain & Flour Exchange.

Boston & Maine	1,500,000
Boston & Albany (N. Y. C. Lessee)	1,000,000
Totals	2,500,000

California

Note: In tons. Source: San Francisco Grain Exchange.

San Francisco	90,000
At Oakland—	
Albers Milling Co.	35,000
West Coast Wharf & Storage Co.	*1,250,000
Stockton	109,000
Miscellaneous—	
Grangers Warehouse at Eckley	50,000
General Mills, Inc., Sperry Division, at South Vallejo	*1,000,000
Miscellaneous space	10,000

*In bushels.

Buffalo

Note: In bushels. Source: Buffalo Corn Exchange.

LAKE ELEVATORS

Standard Milling Co.	5,000,000
Continental Grain Co. (concrete)	4,500,000
Cargill, Inc. (Superior)	3,250,000
Archer-Daniels-Midland Co. (Dellwood)	1,500,000
Cargill, Inc. (electric)	7,550,000
American Elev. & Grain Co.	3,250,000
Pillsbury Mills, Inc. (Mutual)	2,500,000
Co-operative G.L.F. Exchange, Inc.	1,900,000
Spencer Kellogg & Sons, Inc.	1,100,000
Marine Elev. Corp. (Marine "A")	2,100,000
Harper Feed Mills, Inc. (connecting terminal)	1,048,000
Superior Grain Corp. (Canadian Pool)	2,000,000
International Milling Co. (lake and rail)	4,500,000
Total	40,198,000

RAIL ELEVATORS

Buck Rock Milling Co. (Black Rock)	550,000
Eastern Farmers Exchange, Inc.	2,250,000
General Mills, Inc.	4,800,000
Best Food, Inc.	800,000
George J. Meyer Malt & Grain Co., Inc.	750,000
Perot Malting Co.	850,000
Ralston Purina Co.	1,250,000
Eleven elevators	1,860,000
Total	13,110,000
Grand total, 32 elevators	53,308,000

Canadian

Note: In bushels. Source: Board of Grain Commissioners.

	Elevators	Capacity
Manitoba—		
Public country	707	26,917,100
Private country	4	87,000
Mill	6	1,775,000
Private terminal	2	2,940,000
Semi-public terminal	2	3,500,000
	721	35,219,100
Saskatchewan—		
Public country	3,034	109,663,700
Private country	1	29,000
Mill	10	4,995,500
Public terminal	2	11,000,000
	3,047	125,688,200
Alberta—		
Public country	1,690	73,483,400
Private country	4	207,500
Mill	12	4,010,000
Private terminal	4	1,755,000
Public terminal	3	6,100,000
	1,713	85,555,900
British Columbia—		
Public country	31	1,508,300
Mill	11	1,170,110
Semi-public terminal	9	20,174,500
Public terminal	1	1,250,000
	52	24,402,910
Ontario—		
Public country	5	135,000
Mill	3	1,480,000
Private terminal	2	2,435,000
Semi-public terminal	25	89,917,210
Eastern	18	53,925,000
	53	147,892,210
Eastern—		
Quebec	8	24,912,000
New Brunswick	3	3,076,800
Nova Scotia	1	2,200,000
	12	30,188,800
Grand totals	5,598	448,947,120

Cincinnati

Note: In bushels. Source: Cincinnati Board of Trade.

Early & Daniel Co.	2,000,000
Drackett Co.	2,000,000
Cooperative Mills	750,000
6 smaller elevators operated in connection with industries	1,410,000
Totals	6,160,000

Canadian Upper Lake

Note: In bushels. Source: Board of Grain Commissioners.

FORT WILLIAM

On the water front—	
Can. Consolidated Grain Co., Ltd.	1,750,000
Federal Grain Limited	3,000,000
Ft. William Elevator Co., Ltd., "E"	1,750,000
Ft. William Elevator Co., Ltd., "F"	1,750,000
Lakehead Terminals, Ltd.	1,000,000
National Grain Co., Ltd.	5,750,000
Westland Elevators, Ltd.	7,500,000
Ogilvie Flour Mills Co., Ltd.	3,000,000
Paterson & Co., Ltd.	4,000,000
Searle Grain Co., Ltd.	5,000,000
Western Grain Co., Ltd.	3,000,000
Inland—	
*Fort William Elevator Co., Ltd.	40,000
*D. L. Bole	20,000
National Grain Co., Ltd.	85,000
*J. Davidson	10,000
Ogilvie Flour Mills Co., Ltd.	180,000
Total	37,835,000

PORT ARTHUR

On the water front—	
Can. Consolidated Grain Co.	1,500,000
Eastern Terminal Elev. Co., Ltd.	5,500,000
Canada Malting Co., Ltd.	2,350,000
Federal Grain Limited	2,250,000
Manitoba Pool Elevators, No. 1	1,300,000
Manitoba Pool Elevators, No. 2	1,400,000
Manitoba Pool Elevators, No. 9	2,000,000
McCabe Grain Co., Ltd.	3,250,000
Manitoba Pool Elevators, No. 3	3,550,000
Sask. Pool Terminals, Ltd., No. 4	8,468,410
Manitoba Pool Elevators, No. 6	7,398,800
Sask. Pool Terminals, Ltd., No. 7	9,000,000
Superior Elevators Co., Ltd.	900,000
United Grain Growers Terminals, Ltd.	5,500,000
Total	54,367,210
Grand total	92,202,210

*Not licensed.

Eastern Canadian

Note: In bushels. Source: Board of Grain Commissioners.

Collingwood, Ont.	2,000,000
*Depot Harbour, Ont.	1,600,000
Goderich, Ont.	3,600,000
Humberstone, Ont.	2,000,000
Kingston, Ont.	2,350,000
Midland, Ont.	12,300,000
Owen Sound, Ont.	4,000,000
Port Colborne, Ont.	6,250,000
Port McNicoll, Ont.	6,500,000
Prescott, Ont.	5,500,000
Sarnia, Ont.	3,000,000
Toronto, Ont.	4,000,000
Walkerville, Ont.	1,325,000
Montreal, Que.	15,912,000
Quebec, Que.	4,000,000
Sorel, Que.	3,000,000
Three Rivers, Que.	2,000,000
Halifax, N. S.	2,200,000
St. John, N. B.	500,000
West St. John, N. B.	2,576,800
Total	84,113,800

*Not licensed.

Detroit

Note: In bushels. Source: Detroit Board of Commerce.

Henkel Flour Mills	1,000,000
H. W. Rickel & Co.	1,000,000
Froedtert Grain & Malting	500,000
Miscellaneous	100,000
Total	2,600,000

Duluth-Superior

Note: In bushels. Source: Duluth Board of Trade.

General Mills, Inc., Elevator Div.	2,300,000
Globe Elevator Co.	10,000,000
Great Northern Elevator Co. (G and Annex)	12,500,000
Itasca Elevator Co.	2,400,000
Cargill, Inc.	3,200,000
Capitol Elevator Co.	4,000,000
King Midas Flour Mills	1,250,000
Duluth Universal Milling Co.	25,000
Farmers Union Grain Terminal	10,200,000
Occident Terminal Co.	4,500,000
Norris Grain Co.	4,600,000
Total	54,975,000

Chicago (Private)

Note: In bushels. Source: Chicago Board of Trade

Grain warehouses in the Chicago district, except those declared "regular" under the rules of the Board of Trade of the City of Chicago, whose certificates are accepted for delivery on Chicago Board of Trade contracts and warehouses under federal and state license, but are not regular for delivery on Chicago Board of Trade contracts; Jan. 3, 1951, with capacities:

Operated by—	
Columbia Malting Co.	1,000,000
Corn Products Refining Co.	1,350,000
†H. A. Eckhart Milling Co.	1,000,000
*Gerstenberg & Co. (1)	390,000
Glidden & Co.	2,000,000
Fleischmann Malting Co.	1,950,000
Hales & Hunter (2)	2,500,000
A. Schwill & Co.	1,500,000
Arcady Farms Mlg. Co.	95,000
American Maize Prod. Co.	450,000
Archer-Daniels-Midland Co.	220,000
†J. J. Badenoch Co.	150,000
Bisbee Linseed Co.	135,000
*Santa Fe Elev. Corp.	225,000
Klein Brothers	50,000
H. C. Knoke & Co.	25,000
General Mills, Inc., Central Div.	375,000
*Standard Norris Gr. Co.	350,000
States Grain Elevator—	
States Grain Corp.	350,000
Total	15,615,000

*Operated under custodian rule of Board of Trade. †Part custodian.

Chicago (Public)

Note: In bushels. Source: Chicago Board of Trade

Regular warehouses for storage of grain under the rules of the Chicago Board of Trade on Jan. 3, 1951, with capacities in bushels:

Under state supervision, regular for delivery on Chicago Board of Trade contracts.

J. J. Badenoch Co.	
*Badenoch (part of)	450,000
Total, state supervision	450,000

*Under state supervision, but not regular for delivery on Board of Trade contracts.

Under federal license; certificates accepted for delivery on Chicago Board of Trade contracts under Commodity Exchange Act, section 5A (7):

Illinois Grain Terminal Co., Irondale	2,244,000
Norris Grain Co.—	
Norris Elevator	2,100,000
Calumet Elevator	2,500,000
Wabash Elevator	1,300,000
*Elevator J	700,000
General Mills, Inc., Star Grain Division—Rialto Elevator	2,510,000
Santa Fe Elevator Corp., Santa Fe Elevator	1,600,000
Cargill, Inc.—	
C.&N.W. Terminal & Annex	16,307,030
Continental Grain Co.—	
Continental Elevator A & B	3,500,000
F. O. Ward & R. Bacon Grain Co.—	
Keystone Elevator	1,700,000
Farmers Grain Dealers Assn. of Iowa (Co-op.)—	
*New York Central	1,000,000
Stratton Grain Co., *Dickinson	750,000
Rosenbaum Bros., *Belt Elevator	538,000
Spencer Kellogg & Sons, Inc.—	
*Spencer Kellogg	850,000
Total, federal license	37,599,000
Total, all public elevators	38,049,000

*Federal license, but not regular for delivery on Chicago Board of Trade contracts.

PREVIOUS TOTALS

1950	38,099,000	1942	31,417,000
1949	28,049,000	1941	28,917,000
1948	26,791,000	1940	26,418,000
1947	27,413,000	1939	29,407,000
1946	26,763,000	1938	26,568,000
1945	27,313,000	1937	12,068,000
1944	27,559,000	1936	15,912,000
1943	27,559,000		

Evansville, Ind.

Note: In bushels. Source: Chamber of Commerce.

Igleheart Brothers, Inc.	*1,500,000
Charles Nunn & Sons Milling Co.	225,000
Evansville Grain Cooperative, Inc.	190,000
J. A. McCarty Seed Co.	60,000
E. H. Morris Elevator	100,000
Total	2,075,000

*Additional storage of 2,000,000 bu. under construction to be ready for use by June 1, 1951.

Enid

Note: In bushels. Source: Enid Board of Trade.

Continental Grain Co.	2,000,000
Consumers' Cooperative Assn.	16,500
Enid Elevator Corp.	2,000,000
Farmers Grain & Seed Co.	25,000
Feuquay Grain Co.	130,000
Geis Mills	48,000
General Mills, Inc.	2,100,000
W. B. Johnson Grain Co.	240,000
W. B. Johnson Grain Co., Cloverth Elevator	5,000
Palecek Mills	25,000
Pillsbury Mills, Inc.	2,500,000
Salina Terminal Elevator Co.	1,000,000
Union Equity Coop. Exchange (3)	33,300,000
Total	43,389,500

Fort Worth

Note: In bushels. Source: Fort Worth Grain & Cotton Exchange.

Bewley Mills	800,000
Burrus Mill & Elevator Co.	7,000,000
Frank Bailey Grain Co.	350,000
Uhlmann Elevators Co. of Texas—	
Katy Plant	3,600,000
Rock Island Plant	2,200,000
Kimbell Milling Co.	6,000,000
Producers Grain Corp.	2,000,000
Continental Grain Co.	850,000
Interstate Grain Corp.	2,000,000
Great West Grain Co.	100,000
Universal Mills	1,000,000
Feed mills and misc. storage	1,900,000
Total	27,800,000

Galveston

Note: In bushels. Source: Galveston Cotton Exchange and Board of Trade.

Elevator B—Galveston Wharf Co.	5,865,000
Star Mill—Texas Star Flour Mills	500,000
Sunset—Sunset Elevator Co.	1,000,000
Houston	
Houston Public Elevator	3,500,000
Arrow Mills	1,500,000
Port Arthur	
KCS Elevator	500,000
Total	12,865,000

Hampton Roads, Norfolk and Newport News, Va.

Note: In bushels. Source: The Northwestern Miller.

Norfolk Municipal, operated by Norfolk & Western	750,000
Total	750,000

Hutchinson

Note: In bushels. Source: Hutchinson Board of Trade Assn.

Geo. E. Gano Grain Corp.	4,300,000
Security Elevator Co., "A"	2,455,000
Valley Grain Co.	100,000
C. D. Jennings Grain Co.	3,850,000
Farmers' Co-op. Commission Co.	5,500,000
Western Terminal Elevator Co.	1,000,000
Collingwood Grain Co.	1,900,000
Smoot Grain Co.	685,000
Davidson Grain Co.	360,000
Milton A. Bosse Grain Co.	125,000
Total	20,275,000
Private Elevators and Mills:	
Security Elevator "B"	25,000
Wm. Kelly Milling Co.	1,000,000
Commander-Larabee Milling Co.	770,000
Total	1,795,000
Total elevator capacity	22,070,000

Indianapolis

Note: In bushels. Source: Indianapolis Board of Trade.

Acme-Evans Co.	1,250,000
Cleveland Grain Co.	1,750,000
Early & Daniel Co.	1,000,000
Noblesville Milling Co.	700,000
Glidden Co.	2,000,000
National Starch Co.	250,000
Indiana Grain Co-operative, Inc.	2,250,000
Evans Milling Co.	850,000
Total	10,050,000

Kansas City, Mo.

Note: In public and private elevators. In bushels. Source: Kansas City Board of Trade.

Alton Elevator — Salina Terminal Elevator Co.	1,000,000
Burlington—Norris Grain Co.	2,500,000
Checkerboard Elevator Co.	800,000
Chicago-Great Western Elevator—Wolcott & Lincoln Co.	1,000,000
Corn Products Refining Co.	500,000
Eagle Elevator—Scoular-Bishop Grain Co.	280,000
Elevator "A," Santa Fe—Tex-O-Kan Flour Mills Co.	10,000,000
Farmers Union Fairfax Elevator	1,150,000
K.C.S. Norris Grain Co.	1,400,000
Kansas-Missouri—Continental Grain Co.	5,500,000
Katy Elevator—Kansas Grain Co.	3,300,000
Mid-Continent—Mid-Continent Grain Co.	750,000
Milwaukee Elevator—Cargill, Inc.	2,800,000
Norris Elevator—Norris Grain Co.	2,800,000
River Rail—Hart-Bartlett-Sturtevant Grain Co.	3,000,000
Rock Island Elevator — Simonds-Shields-Theis Grain Co.	4,000,000
Wabash Elevator—Uhlmann Grain Co.	4,100,000
Feed mills, smaller elevators (13)	1,252,000
	46,232,000

FLOUR MILL ELEVATORS:

Continental Baking Co.	500,000
Kansas Flour Mills Co.	2,315,000
Commander-Larabee Milling Co.	1,250,000
General Mills, Inc., Central Div.	4,000,000
Midland Flour Milling Co.	400,000
Rodney Milling Co.	2,450,000
Southwestern (Standard Milling Co.)	5,000,000
Sunshine Biscuits, Inc., Milling Division	400,000
Waggoner-Gates Milling Co. (Independence, Mo.)	350,000
	16,665,000
Kansas City total	62,897,000

Kansas Mills

Note: Elevator capacities in bushels. Source: The Northwestern Miller.

Town—	No. mills	At mill	Supplementary
Abilene	2	1,050,000	400,000
Arkansas City	2	950,000	20,000
Atchison	2	2,100,000	350,000
Buhler	1	340,000	23,000
Cherryvale	1	150,000	.....
Claflin	1	240,000	40,000
Clay Center	1	125,000	.....
Clyde	1	110,000	140,000
Coffeyville	1	625,000	10,000
Concordia	1	100,000	.....
Ellinwood	1	300,000	75,000
Fort Scott	1	250,000	.....
Great Bend	3	1,095,000	30,000
Hays	1	300,000	311,000
Hudson	1	250,000	150,000
Hutchinson	2	1,800,000	.....
Inman	1	140,000	.....
Kingman	1	350,000	228,000
Larned	1	158,000	.....
Lawrence	1	400,000	.....
Leavenworth	1	250,000	.....
Liberal	1	640,000	250,000
Lindsborg	1	400,000	300,000
McPherson	2	965,000	298,000
Moundridge	1	340,000	75,000
Newton	4	4,316,000	2,000,000
Russell	1	450,000	70,000
Salina	4	3,325,000	3,300,000
Sterling	1	1,000,000	.....
Topeka	2	450,000	2,000,000
Wellington	1	1,000,000	500,000
Whitewater	1	380,000	.....
Wichita	3	8,500,000	983,000
Wilson	1	137,000	35,000
Winfield	1	427,500	616,500
	51	33,413,500	12,204,500
Kansas City, Kansas	2	5,400,000	.....
	53	38,813,500	12,204,500

Memphis

Note: In bushels. Source: Memphis Merchants Exchange.

Municipal Elevator	1,750,000
Quaker Oats Co.	1,000,000
Seven miscellaneous	1,250,000
	4,000,000

Milwaukee

Note: In bushels. Source: Milwaukee Grain Exchange.

Archer-Daniels-Midland Co. (2)	425,000
Cargill, Inc.	3,000,000
Courteen Seed Co.	125,000
Froedtert Gr. & Malting Co.	10,250,000
Kamm, P. C., Co.	250,000
Krause, Chas. A., Milling Co.	1,500,000
Kurth Malting Co.	3,700,000
Ladish Malting Co.	7,000,000
Neacy, J. L.	100,000
Pabst Brewing Co.	1,400,000
Red Star Yeast & Products Co.	75,000
Rice, J. Walter	30,000
Riebs Co., The (2)	975,000
Schlitz, Jos., Brewing Co.	2,250,000
Stratton Grain Co. (2)	3,900,000
Teweles, L., Seed Co.	165,000
Weschler, D. D., & Sons, Inc.	925,000
Wisconsin Malting Co.	2,500,000
Zinn Malting Co.	1,600,000
Total	40,170,000

Minneapolis

Note: In bushels. Source: Minneapolis Grain Exchange.

"REGULAR" ELEVATORS

Archer-Daniels-Midland Co. (4)	15,260,000
Bunge Elevator Corp.	2,500,000
Cargill, Inc. (2)	4,752,000
Cereal Grading Co.	950,000
Continental Grain Co.	1,200,000
General Mills, Inc.	330,000
Hallet & Carey Elevator Co.	1,300,000
International Milling Co.	1,250,000
Leval & Co., Inc.	4,000,000
Osborne-McMillan Elevator Co.	2,500,000
Russell-Miller Milling Co.	4,200,000
Searle Grain Co.	2,000,000
Spencer Kellogg & Sons, Inc.	1,000,000
Van Dusen Harrington Co. (3)	12,510,000
Victoria Elevator Co.	650,000
Total	54,402,000

PUBLIC BUT NOT "REGULAR"

Farmers Union Grain Co., Terminal Assn.	2,800,000
General Mills, Inc., Central Div.	755,000
Kellogg Milling Co.	150,000
Pillsbury Mills, Inc.	1,000,000
Total	4,705,000

PRIVATE ELEVATORS

Archer-Daniels-Midland Co. (4)	5,438,000
Atkinson Milling Co.	850,000
Cargill, Inc.	255,000
Commander-Larabee Milling Co. (2)	2,738,000
Falk & Co., Inc., Northwest Linseed Div.	500,000
Fleischmann Malting Co. (3)	3,250,000
Froedtert Grain & Malting Co.	1,500,000
General Mills, Inc., Central Div. (2)	4,640,000
Hales & Hunter (Belco No. 1 and 2)	1,500,000
Kurth Malting Co.	1,000,000
Minnesota Linseed Oil Co. (two)	1,200,000
Pillsbury Mills, Inc. (3)	2,450,000
Rahr Malting Co.	1,500,000
Ralston Purina Co.	280,000
Spencer Kellogg & Sons, Inc. (2)	1,725,000
Standard Milling Co.	1,150,000
Van Dusen Harrington Co. (five)	3,410,000
7 additional feed mills and miscellaneous storage	731,000
Total	34,117,000
Grand total	93,224,000

Nebraska Mills

Note: Elevator capacities in bushels. Source: The Northwestern Miller.

Town—	No. mills	At mill	Supplementary
Chadron	1	140,000	.....
Crete	1	1,000,000	.....
Fairbury	1	60,000	40,000
Fremont	1	182,000	.....
Grand Island	1	318,000	.....
Hastings	1	143,000	.....
Holdrege	1	20,000	125,000
Humboldt	1	120,000	170,000
Lexington	1	40,000	200,000
Lincoln	1	2,000,000	.....
Neligh	1	60,000	.....
Norfolk	1	29,500	2,500
Omaha	3	2,433,000	70,000
Scottsbluff	1	60,000	85,000
Wymore	1	60,000	15,000
	17	6,668,500	707,500

Nashville

Note: In bushels. Source: Nashville Grain Exchange.

Continental Grain Co. (2)	1,160,000
Gillette Grain Co.	650,000
11 Elevators for miscellaneous storage and operated in connection with industries	728,400
Total	2,538,400

New Orleans

Note: In bushels. Source: New Orleans Board of Trade, Ltd.

Dock Board Elevator	2,622,000
New Basin—J. T. Gibbons	250,000
Total	2,872,000

New York

Note: In bushels. Source: The Northwestern Miller.

New York State Canal Grain Elevator (Port of N. Y. Authority)	2,000,000
West Shore, Weehawken	2,000,000
Lehigh Valley R. R.	450,000
Total	4,450,000

Oklahoma Mills

Note: Elevator capacities in bushels. Source: The Northwestern Miller.

Town—	No. mills	At mill	Supplementary
Ada	1	60,000	.....
Altus	1	435,000	65,000
Alva	1	600,000	.....
Apache	1	25,000	.....
Ardmore	1	135,000	.....
Blackwell	1	625,000	.....
Chickasha	1	500,000	110,000
El Reno	2	1,670,000	80,000
Enid	1	2,500,000	.....
Geary	1	150,000	.....
Hennessey	1	225,000	.....
Jefferson	1	245,000	.....
Kingfisher	2	1,490,000	62,000
Okeene	1	325,000	237,000
Oklahoma City	2	1,365,000	2,625,000
Ponca City	1	500,000	.....
Shawnee	1	1,000,000	500,000
Stillwater	1	150,000	125,000
Yukon	2	760,000	20,000
	23	12,760,000	3,824,000

Omaha

Note: In bushels. Source: Omaha Grain Exchange.

Allied Mills, Inc.	500,000
Archer-Daniels-Midland Co.	1,750,000
Butler-Welsh Grain Co.—	
Milwaukee "A"	800,000
Cargill, Inc.	10,000,000
Colorado Milling & Elevator Co.—Omaha Flour Mills Division	925,000
Continental Grain Co.	1,450,000
Farmers Union Coop. Elevator Fed.	400,000
Kansas Grain Co.	1,500,000
Kellogg Co.	110,000
Loveland Elevator Co.	450,000
Maney Milling Co. "A"	800,000
Nebraska Consolidated Mills Co.	600,000
Nebraska-Iowa Grain Co.	1,200,000
Omaha Elevator Co.	2,500,000
Pillsbury Mills, Inc.	350,000
Rosenbaum Brothers	1,000,000
Scoular-Bishop Grain Co.	300,000
Updike Grain Corp. "D"	2,500,000
Westcentral Co-op. Grain Co. "A"	1,750,000
Total	28,885,000

Philadelphia

Note: In bushels. Source: Commercial Exchange of Philadelphia.

Port Richmond	2,500,000
Girard Point	2,225,000
Cargill	450,000
Twentieth Street	235,000
Tidewater Elevator	145,000
Totals	5,565,000

Portland, Oregon

Note: In tons. Source: Portland Grain Exchange.

Albers No. 1	5,000
Albers No. 2	3,000
Albers No. 3	3,000
Crown Mills Dock	10,000
Crown Mills Elevator	20,000
Kerr Gifford Dock & Elevator	17,000
Irving Dock	22,000
Northwestern Dock and Elevator	20,000
Quaker Oats Dock & Elevator	39,000
Columbia Milling Co.	4,500
Terminal No. 4 Elevator	60,000
Terminal No. 4 Dock	37,000
Terminal Flour Mills Co.	6,700
Total	246,300

St. Joseph

Note: In bushels. Source: St. Joseph Grain Exchange.

Commander-Larabee Milling Co.	1,750,000
Dannen Grain & Milling Co.	1,375,000
Hart-Bartlett-Sturtevant Grain Co.	2,500,000
Quaker Oats Co.	2,240,000
Russell-Miller Milling Co.	950,000
Stratton-Theis Grain Co.	2,000,000
Feed mills and miscellaneous storage	162,000
Total	10,977,000

St. Louis

Note: In bushels. Source: St. Louis Merchants Exchange.

Cargill "R"—Cargill, Inc.	5,000,000
Cargill "B"—Cargill, Inc.	150,000
Continental Grain Co.—	
Missouri Pacific	3,800,000
Elevator "C"	700,000
Continental	700,000
Brooklyn	750,000
Terminal	100,000
Cornell—Cornell Seed Co.	350,000
Burlington—Norris Grain Corp.	2,450,000
Anheuser-Busch Brewing Assn.	1,500,000
Checkerboard "A"—Checkerboard Elevator Co.	1,500,000
Feed mills—Smaller storage (19)	2,495,500
	19,505,500
ST. LOUIS FLOUR MILL STORAGE	
Valier & Spies Milling Corp.	2,050,000
Russell-Miller Milling Co. (Standard-Tilton Mig. Co., Alton, Ill.)	1,945,000
J. F. Imbs Milling Co. (Belleville, Ill.)	350,000
	4,345,000
Total	23,850,500

Seattle

Note: In bushels. Source: Seattle Grain Exchange.

	Bulk	Sacked
Hanford Street Elevator	3,100,000	.....
Hanford Street Dock	.....	250,000
Bell Street Dock	.....	250,000
Fisher Flouring Mills Co.	2,600,000	200,000
Novelty Mill Co.	25,000	40,000
Chas. H. Lilly Co.	250,000	130,000
Albers Bros. Milling Co.	750,000	360,000
Totals	6,725,000	1,230,000

Tacoma

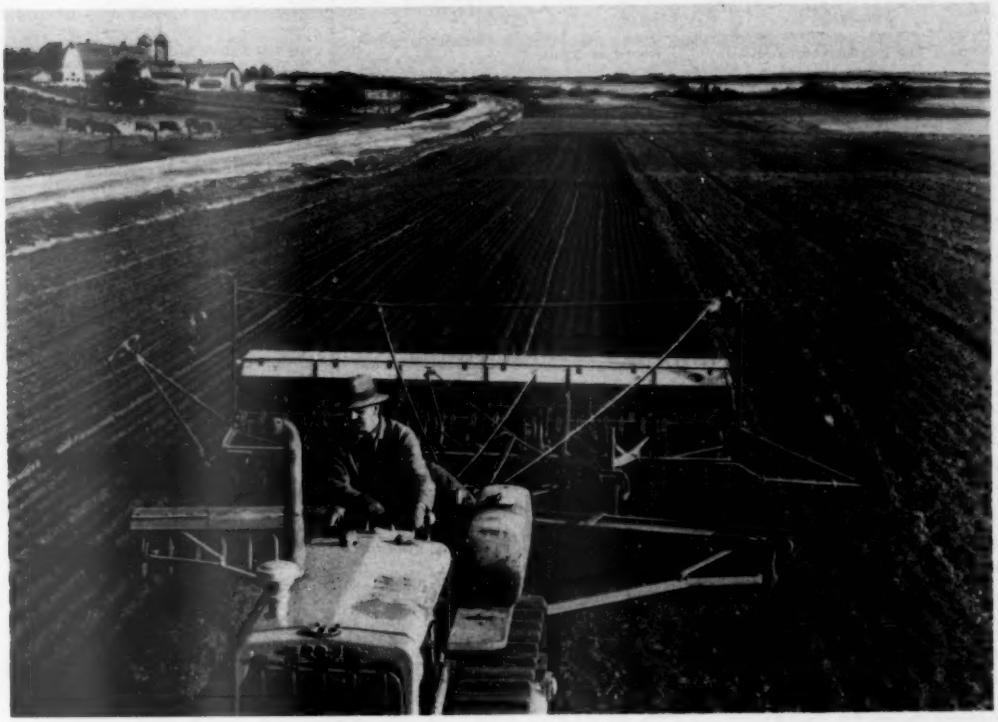
Note: In bushels. Source: Tacoma Merchants' Exchange.

	Bulk	Sacked
General Mills, Inc., Sperry Division	1,000,000	.....
Port of Tacoma	1,200,000	.....
Albers Hay Warehouse	10,000	466,000
Totals	2,210,000	466,000

Wichita

Note: In bushels. Source: Wichita Board of Trade.

Consolidated Flour Mills Co.	1,000,000
Farmers Co-op. Commission	1,750,000
Kansas Milling Co.	3,125,000
Pillsbury Mills, Inc.	2,250,000
Public Terminal Elevator Co.	5,560,000
General Mills, Inc., Central Div.	4,250,000
Wichita Flour Mills Co.	1,000,000
Wichita Terminal Elevator, Inc.	5,750,000
Feed mills and misc. storage	145,000
Total	24,830,000



Is this our answer to the Kolkhoz?

Make no mistake! This rich, peaceful American farm is on guard for America. It is part of a conflict that is now all too clear for our generation. It is the free world against the slave. Christianity against Communism.

None of us can avoid this matching of strength. Everything we have built is on trial. Each of us is matched against his counterpart in Russia—free man against slave. Business and industry developed under a profit, grow-ahead system against state-controlled industrial monopolies. You, a free American farmer tilling the soil you own or rent, against the Russian Kolkhoz—the collective farm where farmers are now driven by overseers to work the land the state has taken from them.

Our survival and final victory lies in the way the free American farmer is able to answer the Kolkhoz—to out-produce it by a tremendous edge so that those in service and those at home continue to be the best fed, best clothed people in the world. It lies in free American business and its ability to roll forth the greatest array of machines and goods the world has ever seen. It lies in free Americans who live under a grow-ahead system and work for a goal, not a whip.

Our strength for the dangerous 'fifties is, strangely enough, in the very things some of the wild-eyed planners of the 'thirties and 'forties wanted to change to the Russian pattern of regimented farms and regimented business, regimented people.

As we face the dangerous years ahead, let's keep and build this strength we have. Let's keep and protect our grow-ahead system that has made us the envy of the world. It is the base of the only power that can answer the challenge of world-wide Communism.

CARGILL

SPECIALISTS IN SERVING *Agriculture*

OFFICES IN MINNEAPOLIS AND 35 OTHER CITIES

This Advertisement also appears in The Farmer, The Dakota Farmer and 12 other publications.

Texas Mills

Note: Elevator capacities in bushels. Source: The Northwestern Miller.

Town—	No. mills	At mill	Supplementary
Amarillo	1	1,200,000	.....
Clifton	1	600,000	.....
Dallas	2	1,250,000	.....
Denton	2	1,125,000	25,000
El Paso	1	250,000	.....
Fort Worth	3	7,900,000	220,000
Gainesville	1	500,000	.....
Galveston	1	500,000	.....
Graham	1	400,000	.....
Greenville	1	1,350,000	.....
Houston	1	1,500,000	400,000
Jacksboro	1	175,000	.....
New Braunfels	1	500,000	.....
Paris	1	450,000	15,000
Plainview	1	1,000,000	14,000,000
San Antonio	2	780,000	.....
Seguin	1	500,000	.....
Sherman	2	2,547,000	.....
Stanford	1	50,000	.....
Wichita Falls	1	1,759,000	.....
Winters	1	60,000	.....
	27	24,396,000	14,660,000

Winnipeg

Note: In bushels. Source: Board of Grain Commissioners for Canada.

WINNIPEG	
Ogilvie Flour Mills Co., Ltd.—Two mills	575,000
Canada Malting Co., Ltd.—Private terminal	1,340,000
Laing Bros., Ltd.—Private country	10,000
The Sherwin Williams Co. of Canada, Limited—Mill	75,000
*Manitoba Feed Supply Co.—Country elevator	40,000
Federal Grain, Ltd.—Country elevator	160,000
Soo Line Mills, Ltd.—Country elevator	91,000
Steele, Briggs Seed Co., Ltd.—Mill	5,000
Red River Grain Co., Ltd.—Country elevator	95,000
Economy Grain & Feed Co.—Country elevator	20,000
Total	2,411,000
TRANSCONA	
Dominion Malting Co., Ltd.—Private terminal	1,800,000
NORTH TRANSCONA	
Eastern Terminal Elevator Co., Ltd.—Semi-public terminal	1,000,000
ST. BONIFACE	
Dominion Linseed Oil Co., Ltd.—Mill	70,000
Purity Flour Mills, Ltd.—Mill	1,050,000
Red River Grain Co., Ltd.—Two Country elevators	375,000
McCabe Bros. Grain Co., Ltd.—Country elevator	90,000
St. Boniface Grain & Feed Co., Ltd.—Country elevator	192,000
Central Grain Co.—Country elevator	132,000
Searle Grain Co., Ltd.—Country elevator	100,000
Manitoba Pool Elevators—Country elevator	25,000
*Soubry Grain & Feed Co., Ltd.	40,000
Dominion Grain & Feed Co.—Private Country	12,000
Total	3,986,000
Grand total	7,297,000

*Not licensed.

Toledo

Note: In bushels. Source: Toledo Board of Trade.

Cargill, Inc.	3,139,000
B. & O. Elevator (Norris Grain Co.)	500,000
East Side Iron—East Side Iron Elevator Co. (Norris Grain Co.)	1,750,000
National Biscuit Co., Inc., Toledo Mill	6,500,000
Anderson Elevator Co.—	
Maumee, Ohio	1,000,000
Toledo	450,000
Nine elevators operated for storage grain and soybeans	1,400,000
Total	14,739,000

Vancouver

Note: In bushels. Source: Board of Grain Commissioners for Canada.

Alberta Wheat Pool	5,150,000
Kerr Gifford & Co., Inc., No. 2	1,650,000
Pacific Elevators, Ltd.	5,243,000
Jas. Richardson & Sons, Ltd.	600,000
United Grain Growers Terminals, Ltd.	2,705,000
Kerr Gifford & Co., Inc., No. 1	1,868,500
Buckerfield's, Ltd.	520,000
Marpole Grain Co. & Richmond Feed, Ltd.	7,000
McLellan & McCarter, Ltd.	15,000
United Milling & Grain Co., Ltd.	25,000
United Distillers, Ltd.	35,000
Midland Pacific Terminals, Ltd.	1,500,000
Totals	19,318,500
NEW WESTMINSTER	
British Columbia Distillery Co., Ltd.	151,110
Brackman Ker Milling Co., Ltd.	220,000
Searle Grain Co., Ltd.	750,000
Totals	1,121,110
VICTORIA	
Kerr Gifford & Co., Inc.	1,008,000
WOODWARD'S LANDING	
Delta Flour Mills, Ltd.	50,000

Baltimore Ch. of Commerce

President, Gustav Herzer, Jr.; vice president, Blanchard Randall; secretary-treasurer, Howard G. Disney; assistant treasurer, Earl F. Myers. Executive committee: Chairman, C. Francis Roth, vice chairman, Henry A. Lederer, Jr., Harry E. Morrison, Stanley J. Hope and G. Ernest Fischer.

Buffalo Corn Exchange

President, Theo. A. Wagner; vice president, John Norwig; treasurer, Otto E. Auerbach; executive secretary and traffic commissioner, Lester J. Dorr; assistant treasurer, Richard J. Murray.

Chicago Board of Trade

The Chicago Board of Trade was organized March 13, 1848. The first quarters were in a small room over a flour store on South Water Street. The first president of the organization was Thomas Dyer. There were 82 members.

In 1849 the Illinois legislature passed a law for the establishment of boards of trade and chambers of commerce. In 1848 the Chicago Board of Trade was incorporated. Various quarters were utilized until April 29, 1885, when another Board of Trade Building was completed at a cost of $1,750,000, the trading room being one of the largest in the U.S. Eventually, the board outgrew these quarters, and a new building was erected on the same site at a cost of about $20,000,000. It was occupied June 9, 1930.

Carl E. Bostrom is president; Sylvester J. Meyers, first vice president; Homer P. Hargrave, second vice president; J. O. McClintock, executive vice president and Everette B. Harris, secretary.

Dallas Grain Exchange

President, Trammell Crow; vice president, J. Robert Cooper; secretary-treasurer, G. H. Rogers; directors: W. B. Lathrop, G. L. Collins, L. R. Perkinson, A. J. Gleason, R. D. Zumwalt, Julius Pearlstone and R. S. Hjelmseth.

Enid Board of Trade

President, Dale H. Johnston, W. B. Johnston Grain Co.; vice president, Price Feuquay, Salina Terminal Elevator Co.; secretary-treasurer, E. R. Humphrey, E. R. Humphrey Grain Co.; assistant secretary-treasurer, C. J. Harriss.

Ft. Worth Grain & Cotton Exchange

President, Gus E. Cranz; vice president, Ben M. Ferguson; treasurer, W. O. Brackett; secretary, E. B. Wooten; directors: W. P. Homar, M. C. Rail, K. K. Smith and Jack N. Greenman.

Hutchinson Board of Trade

President, Homer Jennings; vice president, F. C. Hazelton; secretary, M. W. Urban; treasurer, P. M. Clarke.

Kansas City Board of Trade

President, F. J. FitzPatrick; first vice president, Warren E. Root; second vice president, J. J. Wolcott, Jr.; executive vice president, Walter R. Scott; treasurer, E. M. Summers; assistant treasurer, P. A. Thomason; assistant secretary, Miss A. H. Karges; transportation assistant, J. S. Chartrand.

Minneapolis Grain Exchange

President, R. C. Woodworth; first vice president, A. G. Hessburg; second vice president, F. H. Higgins; secretary, Ron Kennedy; assistant secretary, George Wilkens; treasurer, George H. Stromme. Board of directors: senior director, Ben C. McCabe, A. M. Howard, Percy B. Hicks, J. F. Mullin, R. G. Cargill, H. L. McMillan, G. W. P. Heffelfinger, Philip S. Duff, Allan Q. Moore and E. E. Quinn.

Omaha Grain Exchange

President, H. C. Christiansen; first vice president, R. M. Scoular; second vice president, J. G. Oertel; treasurer, F. C. Bell; secretary, E. P. Manchester.

Seattle Grain Exchange

President, Gordon T. Shaw; secretary, A. W. Anderson; manager, Sam Ursic.

St. Louis Merchants Exchange

President, H. H. Vogel; first vice president, D. W. Kleitsch; second vice president, J. L. Young; secretary-treasurer, W. J. Krings; assistant secretary-treasurer, J. B. Fowler. Directors: L. C. Chase, R. H. Dean, E. S. Deibel, E. E. Hugo, Voris Toberman and R. A. Woolsey.

Wichita Board of Trade

President, Paul Ross; vice president, Harold J. Moore; secretary-treasurer, W. H. Ottery; executive secretary, D. L. Mullen.

Winnipeg Grain Exchange

President and chairman of board of governors, Stanley N. Jones; vice chairmen, J. R. Lindsay and C. L. Simmonds; secretary, J. T. Irving; board of governors (2-year term): R. R. Emerson, R. N. Hickman, A. Searle Leach, F. W. Parrish, R. A. Purves, Clarence H. Smith; (1-year term): H. L. Flood, Charles Kroft, K. A. Powell, D. G. Thomson; committee of arbitration: W. R. Bawlf, D. H. Lockerbie, A. W. Mulligan, B. H. Roberts, H. L. Saunders, S. A. Searle, F. L. Tucker; committee on appeals: W. J. Bowler, C. E. Hayles, John Lumsden, A. W. Sellers, J. N. Sternberg, Herbert Tooley, A. P. White.

The Forrester Grain Co.

Members of the Toledo and Chicago Board of Trade

COUNTRY RUN GRAIN

George J. Forrester — Robert J. Forrester

We Solicit Your Inquiries

PRODUCE EXCHANGE BUILDING — **TOLEDO, OHIO**

Telephones ADams 5912, FAirfax 0312, LD 28 and 36 — **Teletype** Tol. 294

Kansas City Grain Movement

Note: In bushels, 000's omitted. Source: Kansas City Board of Trade.

RECEIPTS

	Wheat	Corn	Oats	Rye	Barley
1950..	117,803	31,618	5,096	164	1,148
1949..	111,731	32,963	6,490	357	1,492
1948..	156,631	24,675	5,944	541	1,328
1947..	188,258	38,255	6,588	366	2,955
1946..	126,338	26,970	9,576	402	3,966
1945..	121,842	48,105	8,860	565	7,280
1944..	121,334	31,297	4,124	1,060	7,373
1943..	127,406	35,268	8,480	2,253	5,939
1942..	73,820	38,610	5,018	611	4,893
1941..	84,781	10,696	2,792	381	3,074
1940..	69,918	16,771	1,216	113	338
1939..	80,549	11,229	2,118	417	394
1938..	99,621	12,311	3,068	507	339
1937..	96,083	12,243	3,396	476	565
1936..	63,744	17,481	3,248	213	998
1935..	49,701	18,054	3,806	321	747
1934..	44,058	25,236	1,998	177	314
1933..	49,115	18,831	2,658	210	502
1932..	80,294	7,631	1,604	134	598
1931..	125,032	22,044	3,110	133	1,057
1930..	95,968	30,022	5,594	468	2,864
1929..	101,552	32,417	5,156	204	2,677

SHIPMENTS

	Wheat	Corn	Oats	Rye	Barley
1950..	70,196	18,246	3,346	132	795
1949..	72,790	15,088	4,710	144	1,163
1948..	106,830	11,892	4,092	312	6,046
1947..	109,373	25,423	5,098	261	2,949
1946..	99,673	14,887	8,288	325	3,526
1945..	88,583	30,298	6,306	582	7,187
1944..	67,376	18,772	3,280	786	5,726
1943..	107,355	21,802	7,044	1,146	4,376
1942..	43,630	24,309	4,108	470	4,032
1941..	47,191	7,269	1,514	276	2,069
1940..	33,975	4,724	574	47	66
1939..	47,139	6,167	2,012	86	186
1938..	51,190	7,280	2,144	195	78
1937..	53,121	3,734	2,914	114	165
1936..	32,352	9,192	3,294	72	378
1935..	26,556	15,945	1,692	119	322
1934..	31,344	19,149	1,442	186	326
1933..	26,921	8,226	1,004	107	333
1932..	38,532	1,293	588	111	374
1931..	84,359	16,815	1,584	166	1,131
1930..	62,919	22,087	3,980	273	1,982
1929..	64,727	23,365	2,882	156	1,715

Receipts of kafir corn, milo maize and feterita in the years since records were kept, in bushels:

1950.....	15,174,250	1940.....	1,090,600
1949.....	5,118,750	1939.....	931,000
1948.....	9,150,750	1938.....	1,002,400
1947.....	7,273,000	1937.....	800,800
1946.....	4,826,500	1936.....	1,256,800
1945.....	21,274,750	1935.....	635,600
1944.....	12,859,000	1934.....	978,600
1943.....	6,850,550	1933.....	1,325,000
1942.....	1,762,600	1932.....	1,392,000
1941.....	2,662,800		

Shipments of kafir corn, milo maize and feterita in the years since records were kept, in bushels:

1950.....	13,016,500	1940.....	864,000
1949.....	5,171,250	1939.....	825,600
1948.....	6,749,750	1938.....	936,000
1947.....	5,741,750	1937.....	554,400
1946.....	4,077,500	1936.....	652,800
1945.....	20,499,500	1935.....	471,600
1944.....	11,669,000	1934.....	998,400
1943.....	4,623,500	1933.....	1,157,800
1942.....	1,972,800	1932.....	1,496,600
1941.....	1,632,400		

Lake Shipments

Note: From Duluth-Superior, by calendar years, in bushels, 000's omitted. Source: Duluth Board of Trade.

	DOMESTIC GRAIN					
	Wheat	Corn	Oats	Rye	B'l'y	Flax-seed
1950.	51,904	19,036	3,354	261	4,873	8,553
1949.	100,523	14,807	11,390	710	11,947	4,516
1948.	84,847	9,309	5,631	283	3,562	10,505
1947.	83,353	3,869	9,667	...	6,683	4,244
1946.	96,160	...	11,946	...	2,962	5,190
1945.	137,200	3,733	17,946	...	4,935	5,675
1944.	108,031	354	1,831	80	492	4,682
1943.	56,353	1,936	316	495	3,691	7,760
1942.	46,230	11,222	846	1,148	2,549	6,623
1941.	46,853	20,395	1,433	3,756	4,710	2,657
1940.	46,282	13,531	4,257	3,127	5,057	5,148
1939.	40,035	13,565	15,552	4,448	6,703	4,192
1938.	41,010	9,242	11,527	4,670	5,708	1,481
1937.	25,996	3,573	8,522	5,355	9,140	970
1936.	9,532	2,326	6,596	3,080	4,582	992
1935.	14,823	1,028	8,513	2,767	7,381	2,420
1934.	25,342	7,144	9,498	1,189	4,057	237
1933.	42,269	5,865	4,258	3,153	4,653	1,901
1932.	39,981	24	821	2,070	2,637	3,949
1931.	41,789	2,314	2,920	1,078	1,971	3,593

Wheat Movement at U.S. Centers

Note: By calendar years, in bushels, 000's omitted. Source: Local grain exchanges.

RECEIPTS

	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941
Baltimore	15,514	29,252	45,139	25,290	....	....	....	....	....	....
Chicago	22,110	36,963	26,616	44,113	21,217	27,797	67,473	48,744	20,539	22,050
New York	10,156	24,786	16,540	14,417	11,284	33,795	13,729	19,846	17,004	26,744
Minneapolis	122,050	140,270	142,911	157,068	117,992	126,109	189,171	208,976	138,708	134,375
Dul.-Superior	76,923	122,953	112,505	107,017	117,661	145,330	128,139	87,387	58,975	65,844
Boston	3,991	7,474	....	6,710	6,797	11,510	3,111	8,741	2,543	7,052
Toledo	20,892	28,631	28,170	22,415	19,564	33,285	§30,045	§21,853	§15,577	16,861
Indianapolis	6,453	8,417	10,481	7,998	10,712	13,081	16,163	17,590	5,272	5,497
St. Joseph	17,354	14,351	18,120	18,152	16,522	18,744	17,226	17,070	10,546	7,908
Omaha	33,019	38,955	46,770	45,888	37,412	33,572	28,692	37,366	18,358	22,336
Kansas City	117,803	111,731	156,631	188,258	126,338	121,842	121,334	127,406	73,820	84,781
St. Louis	26,752	30,399	37,407	27,744	18,374	21,639	29,978	19,651	11,880	15,036
Philadelphia	11,001	24,730	26,530	23,445	34,567	47,543	16,321	23,157	4,405	6,939
Cincinnati	5,679	....	5,980	....	....	....	....	9,796	....	5,499
Milwaukee	2,444	5,136	4,517	4,960	3,666	5,894	8,943	3,496	1,698	4,033
New Orleans	4,610	4,855	12,406	7,447	3,990	....	*445	728	*112	2,600
Ft. Worth*	15,360	36,107	27,485	33,411	18,269	17,875	19,618	14,798	10,151	11,139
Seattle*	13,382	15,385	11,700	14,095	13,397	11,137	8,478	10,836	7,772	8,542
Tacoma*	7,059	9,325	7,648	9,525	12,000	8,213	3,244	8,455	6,593	9,081
Portland, Ore.	23,042	31,187	10,736	25,780	26,414	16,780	13,190	12,238	....	14,702
Buffalo‡	60,383	94,978	82,354	102,343	93,462	136,758	159,003	110,927	74,228	89,509
Memphis	...‖	60	86	837	397	1,231	673	930	....	909
Norfolk	...‖	2,388	4,658	....	....	....	....	....	....	....

SHIPMENTS

	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941
Chicago	13,845	26,761	24,034	34,986	19,020	26,530	59,021	43,127	24,230	13,442
New York	11,469	13,171	10,377	8,361	14,662	35,800	11,125	21,194	26,732	23,644
Minneapolis	36,261	49,013	56,236	65,943	49,379	68,648	101,523	117,744	58,647	32,267
Dul.-Superior	64,615	116,888	99,572	99,515	116,717	145,850	130,305	96,285	53,920	49,998
Boston	4,200	6,829	....	5,205	8,178	12,910	2,083	8,759	2,361	7,332
Toledo	8,237	14,175	15,494	8,808	9,216	20,740	16,541	6,965	5,624	6,348
Indianapolis	3,872	4,829	6,896	5,859	6,128	6,382	8,718	9,653	3,410	2,700
St. Joseph	11,222	10,313	9,452	7,712	9,879	11,361	9,551	13,018	6,203	3,804
Omaha	21,496	33,171	27,550	33,875	24,108	22,551	17,753	37,912	8,732	9,703
Kansas City	70,196	72,791	106,830	109,373	99,673	88,583	67,376	107,355	43,630	47,191
Baltimore	14,006	27,636	45,764	17,855	39,374	70,325	14,935	11,715	13,441	14,819
Philadelphia	10,953	23,412	26,022	21,272	35,961	46,266	9,775	15,091	1,788	5,279
Cincinnati	4,549	....	5,470	....	....	....	....	4,230	....	5,089
Milwaukee	2,133	4,371	2,932	4,683	3,341	7,144	8,206	3,959	2,636	1,788
New Orleans	15,837	19,317	2,430	31,089	22,350	....	*783	*669	*42	166
Portland, Ore.	14,259	25,599	†8,964	†15,746	†15,478	....	....	....	....	1,352
Ft. Worth*	8,184	15,587	12,267	†11,080	9,756	12,943	10,386	12,902	4,903	5,444
Norfolk	....	2,225	4,898	....	....	....	....	....	....	....

*Carloads, 000's not omitted. ‡Lake receipts only. §Includes lake shipments. †Waterbound.

Flour Movement at U.S. Centers

Note: By calendar years in sacks, 000's omitted. Source: Local grain exchanges.

RECEIPTS

	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941
Baltimore	2,592	3,449	2,474	7,137	6,403	5,284	3,732	2,411	2,072	1,921
Boston	1,100	....	....	....	....	....	....	....	....	....
Chicago	24,446	25,908	24,665	27,597	27,001	29,841	25,364	23,549	23,752	19,765
Ft. Worth	....	....	‡6,196	....	‡100	....	....	....	....	....
Milwaukee	866	1,496	1,473	1,371	1,159	579	1,166	1,417	1,611	1,835
New York	11,845	10,894	15,236	19,595	16,624	25,687	20,596	17,142	12,751	15,837
Philadelphia	....	....	3,584	....	3,691	3,738	3,519	1,789	3,416	15,243
Portland	1,414	1,874	1,284	1,094	....	....	....	....	....	....
Tacoma‡	....	....	1,482	1,222	....	....	401	806	713	862
Seattle‡	....	....	1,241	921	....	....	1,540	1,447	2,108	1,830

SHIPMENTS

Baltimore	829	1,563	1,590	4,052	*....	....	....	....	....	....
Chicago	7,655	9,732	10,055	11,174	10,868	5,108	9,310	10,884	11,125	11,049
Ft. Worth	....	....	‡130	....	‡6,365	....	....	....	....	....
Milwaukee	292	462	521	559	491	278	494	564	515	710
Minneapolis	14,829	13,430	12,146	15,991	14,327	14,207	13,115	12,726	11,828	11,507
New York	5,733	6,645	9,397	14,320	11,128	*....	*....	*....	*....	*....
Philadelphia	....	....	1,094	....	2,798	2,143	3,653	2,022	1,558	25
Portland	1,013	1,464	1,425	†2,292	†2,313	*....	*....	*....	1,356	6,786
St. Joseph	....	....	....	....	....	2,807	....	2,283	2,119	2,172

*Not available. ‡Cars. †Waterbound.

Grain Receipts by Lake at Buffalo

Note: By calendar years, in bushels, 000's omitted. Source: Corn Exchange of Buffalo.

Year—	Wheat	Corn	Oats	Barley	Rye	Flaxseed
1950	60,383	13,817	9,268	3,600	2,204	7,757
1949	94,978	20,389	17,511	8,094	948	3,961
1948	82,354	9,175	19,724	4,599	2,261	10,341
1947	102,343	8,529	10,893	5,019	none	3,159
1946	93,462	3,853	14,572	5,489	1,405	3,104
1945	136,758	6,527	21,666	5,297	1,193	4,900
1944	159,003	1,336	49,583	4,531	4,035	5,883
1943	110,927	3,650	27,163	20,243	311	13,068
1942	74,228	13,929	9,061	3,279	915	8,636
1941	89,509	28,322	4,562	5,694	5,170	2,068
1940	82,027	22,012	10,819	4,870	3,120	4,235
1939	103,805	26,697	11,945	12,140	4,751	3,140
1938	69,904	22,875	6,648	5,025	2,071	614
1937	85,860	15,484	4,038	5,943	3,065	1,730
1936	77,396	11,957	3,302	6,748	1,327	715
1935	87,438	4,522	6,483	6,687	1,988	979
1934	86,590	21,669	5,008	4,198	890	371
1933	87,972	28,464	5,349	4,970	2,194	688
1932	98,869	24,501	8,366	2,886	2,388	3,345
1931	127,766	11,367	6,073	7,171	1,640	2,538
1930	148,155	10,152	6,880	8,681	1,688	5,999
1929	135,189	9,996	5,538	15,154	1,236	1,835
1928	210,591	10,036	9,951	35,688	7,724	5,654
1927	188,451	11,648	10,778	28,991	11,439	6,402

Minneapolis Grain, Flour and Feed Movement

Note: By calendar years, 000's omitted. Source: Minneapolis Grain Exchange.

RECEIPTS

	Flour, sacks	Millfeed, tons	Bushels: Wheat	Corn	Oats	Barley	Rye	Flaxseed	Totals, grain
1950	*..	*..	122,649	24,332	26,463	62,314	6,559	30,827	272,544
1949	*..	*..	140,270	34,702	38,750	76,524	8,024	22,647	320,917
1948	*..	*..	142,911	25,497	45,313	60,945	9,448	40,048	323,262
1947	*..	*..	157,068	24,766	70,582	76,137	7,014	20,730	356,297
1946	*..	*..	117,992	18,971	70,981	62,663	4,806	14,218	289,621
1945	*..	*..	126,109	30,744	72,302	58,230	6,128	19,224	312,737
1944	*..	*..	189,171	11,355	52,457	59,431	4,629	17,936	334,979
1943	*..	*..	208,976	12,087	58,905	78,560	13,943	26,951	400,478
1942	*..	*..	138,708	19,169	45,689	58,307	13,246	25,142	300,361
1941	*..	*..	134,375	16,205	32,450	54,215	18,941	19,685	275,869
1940	*..	*..	113,373	19,656	21,146	39,721	8,762	16,148	218,806
1939	*..	*..	94,391	18,069	26,555	49,504	12,587	12,593	213,609
1938	917	22	60,191	30,619	17,157	36,114	9,061	4,953	158,095
1937	945	27	52,339	12,065	22,074	29,416	7,730	7,149	131,873
1936	925	27	45,828	10,446	21,166	35,859	6,124	4,419	123,836
1935	617	19	61,471	5,388	25,871	25,398	4,891	8,955	131,975
1934	639	21	42,910	16,167	8,173	23,660	3,185	4,283	98,380
1933	612	14	64,076	17,964	22,512	22,613	5,456	4,189	137,810
1932	676	17	57,586	6,037	12,504	14,521	4,392	5,186	100,226
1931	417	23	74,668	8,081	10,003	13,730	4,443	7,606	118,531

*Figures not available.

SHIPMENTS

	Flour, sacks	Millfeed, tons	Bushels: Wheat	Corn	Oats	Barley	Rye	Flaxseed	Totals, grain
1950	14,829	620	36,261	21,037	19,273	49,774	5,192	6,207	137,744
1949	13,430	544	49,013	31,255	24,048	53,816	6,361	2,982	167,475
1948	12,146	557	56,236	18,425	37,070	53,768	7,393	8,598	184,796
1947	15,991	819	65,943	22,141	56,806	58,212	3,086	3,694	209,883
1946	14,327	887	49,379	15,542	71,251	50,894	3,533	5,047	195,646
1945	14,207	930	68,648	27,509	51,985	45,895	4,349	3,839	202,135
1944	13,115	1,008	101,523	9,618	46,867	47,192	5,730	2,963	213,893
1943	12,726	835	117,744	11,828	48,780	57,111	9,180	3,720	248,363
1942	13,216	528	58,647	17,289	37,350	41,264	7,727	3,186	165,463
1941	11,507	400	32,267	21,239	25,589	35,095	7,182	1,900	123,181
1940	11,517	362	26,138	12,333	19,413	30,809	5,345	3,266	97,804
1939	12,475	345	26,997	16,772	20,437	31,729	5,268	2,268	103,081
1938	12,288	307	27,763	21,416	21,302	32,150	4,374	914	107,918
1937	12,248	325	19,180	6,882	19,299	24,021	5,882	897	75,962
1936	14,038	420	22,699	7,619	17,208	28,501	5,349	1,783	83,159
1935	13,756	343	26,269	9,739	16,498	20,675	2,470	1,559	77,210
1934	14,796	383	22,600	12,610	16,443	17,170	2,446	977	72,246
1933	14,886	376	26,697	11,518	12,776	14,571	3,834	1,467	70,857
1932	16,063	388	28,209	2,579	4,448	7,883	2,302	1,809	47,230
1931	19,016	521	36,409	8,804	10,113	12,129	3,491	1,953	70,899

Shipments of Flour, Millfeed from Minneapolis

Note: For year ending Dec. 31, 1950. By carlots. Source: H. H. Thomas, St. Paul & Sault Ste. Marie R. R.

	Rock Island	C., B.&Q.	C.,M.,St. P. & P.	Oma-ha	Great West	Great North.	M. & St. L.	M., St. P. & S.	N. North. Pac.	Soo	Totals
Atkinson Milling Co.	65	187	1,666	335	69	32	234	8	46	134	2,785
King Midas Mill Co.	49	101	533	658	55	15	79	3	187	475	2,155
Comm.-Lar. Ml. Co.	30	169	2,233	503	51	39	308	269	78	191	3,871
Standard Mlg. Co...	181	471	457	589	397	24	342	4	97	480	3,042
Pillsbury Mills, Inc.	495	1,577	1,282	1,492	502	513	664	124	278	745	7,672
Russell-Miller M. Co.	28	47	107	111	108	154	43	1	25	45	669
Minn. Lins'd Oil Co.	116	90	357	688	47	169	178	264	119	329	2,357
General Mills, Inc..	769	2,567	1,680	2,124	1,278	564	1,696	125	499	1,753	13,059
Misc. feed mills ..	417	1,175	3,481	966	365	630	975	1,908	532	1,752	14,751
Ar.-Daniels-Mid. Co.	462	673	980	1,644	971	220	455	63	417	632	6,517
Spencer Kellogg Co.	481	341	938	896	641	252	384	9	52	145	4,139
Total, 1950	3,093	6,918	13,665	12,813	4,484	2,618	5,358	2,778	2,330	6 681	60,737
1949	3,222	6,574	12,619	12,405	4,987	2,603	5,199	2,380	1,965	6,872	58,826
1948	2,249	5,665	10,818	9,793	5,085	1,958	4,756	2,370	1,373	5,829	49,887
1947	3,086	7,195	12,796	10,937	7,842	2,077	5,030	1,953	1,629	7,155	59,670
1946	2,958	13,292	11,185	9,391	2,974	4,600	1,293	1,841	7,055	58,191
1945	3,636	6,005	13,994	11,577	6,271	3,043	3,828	1,252	1,842	6,911	58,359
1944	5,330	5,980	12,483	12,605	7,537	3,334	4,687	1,342	1,760	7,012	62,070
1943	4,937	5,257	11,319	12,965	5,334	3,329	4,707	1,803	1,594	6 299	57,544
1942	4,464	4,439	9,669	11,155	3 787	3,041	4,504	1,562	1,824	5,265	49,710
1941	3,978	4,021	9,303	10,533	3,893	3,784	4,239	813	2,637	4,925	48,126
1940	3,470	3,522	8 242	9,019	3,521	3,543	3,797	743	2,610	4,547	43,044
1939	3,139	3,467	7,505	8,440	3,383	4,058	3,733	834	2,538	4,493	41 590
1938	2,753	3,238	7,224	8,006	3,223	4,060	3,863	534	2,426	4,565	39,894

New York Canal Grain Receipts and Shipments

Note: New York Canal System is composed of four canals: Erie, Oswego, Cayuga-Seneca and Champlain, by net tons of 2,000 lb. Source: New York Department of Public Works, Albany, N. Y.

Forwarded from—	1949: Wheat	Corn	Oats	1950: Wheat	Corn	Oats	Barley
Buffalo	16,785	22,983	913	27,138	28,589	432	....
Buffalo, via Oswego	5,585	3,166	....	300	....	....	....
Oswego	563,197	28,276	....	79,656	77,036	....	9,348
Albany	....	1,811	....	....	....	2,320	....
Chicago, via Oswego	....	....	....	....	1,624	....	....
Duluth, via Oswego	....	....	....	....	....	....	....
Milwaukee, via Oswego	1,017	448	....	1,860	....	....	....
Toledo, via Oswego	....	....	....	....	1,568	....	....
Total	586,474	56,684	913	108,954	108,817	2,752	9,348
Received at—							
Albany	584,521	40,487	913	86,178	100,675	....	9,548
Buffalo, via Oswego	....	1,811	....	....	....	2,320	....
New York	1,950	....	....	22,776	552	432	....
Peekskill	....	14,376	....	....	7,590	....	....
Total	586,474	56,684	913	108,954	108,817	2,762	9,348

Minneapolis Grain Movement

Note: By crop years, ending Aug. 31, 000's omitted. Source: Minneapolis Grain Exchange.

RECEIPTS

	1949-50	1948-49	1947-48	1946-47
Wheat, bu.	111,489	159,059	146,348	137,678
Corn, bu.	31,154	28,927	18,766	24,075
Oats, bu.	24,473	45,978	61,928	68,310
Barley, bu.	48,578	82,798	74,136	67,100
Rye, bu.	5,461	10,968	8,880	4,636
Flaxseed, bu.	27,581	36,670	25,305	13,265
Soybeans, bu.	4,090	8,172	6,006	10,584
Scrgs., tons	39	76	62	56

SHIPMENTS

	1949-50	1948-49	1947-48	1946-47
Wheat, bu.	39,384	56,275	55,507	63,101
Corn, bu.	22,433	25,342	17,264	20,233
Oats, bu.	19,588	26,428	51,438	59,613
Barley, bu.	42,248	58,722	55,571	55,398
Rye, bu.	4,845	7,517	5,569	2,902
Flaxseed, bu.	5,052	8,667	4,120	5,102
Millfeed, tons	657	581	658	843
Flour, sacks	14,672	11,619	14,171	16,459
Soybeans, bu.	2,100	2,980	3,436	....
Scrgs., tons	118	101	93	89

Canadian Grain at Buffalo

Note: By calendar years, in bushels, 000's omitted. Source: Buffalo Corn Exchange.

	Wheat	Oats	Barley	Flaxs'd	Rye
1950	12,428	6 080	1,001	....	1,943
1949	11,343	10,146	455	....	174
1948	7,211	15,088	1,378	507	1,874
1947	14,345	971	....	....	....
1946	3,438	2,339	2,411	....	1,303
1945	82,191	36,881	1,724	660	285
1944	79,039	47,235	3,974	5,914	3,329
1943	60,804	26,917	16,511	7,673	24
1942	30,908	8,216	705	2,417	268
1941	45,754	3,129	2,256	380	1,061
1940	34,437	7,437	288	55	1,476
1939	56,337	3,489	6,144	283	....
1938	14,899	....	890	365	26
1937	12,635	....	565	696	....
1936	56,040	73	2,559	....	790
1935	64,816	819	272	....	310
1934	49,713	397	802	....	....

Navigation in Canada

Port—	Opening	Closing
Montreal	April 25	Dec. 7
Prescott	April 25	Dec. 10
Kingston	April 20	Dec. 15
Port Colborne (Canal)	April 15	Dec. 1
Toronto	April 5	Dec. 15
Sarnia	April 15	Dec. 10
Goderich	April 20	Dec. 19
Wiarton	April 20	Dec. 10
Owen Sound	April 20	Dec. 10
Collingwood	April 20	Dec. 10
Meaford	April 20	Dec. 10
Midland	April 20	Dec. 10
Parry Sound	April 20	Dec. 10
Sault Ste. Marie	April 20	Dec. 10
Port Arthur	April 20	Dec. 12
Fort William	April 20	Dec. 12

Quebec harbor is usually open all winter, but navigation with lower ports and the sea opens on an average about April 10, and closes about Dec. 10. St. John harbor and Halifax harbor are open all the year round. So also are Vancouver, Prince Rupert and the other Canadian harbors on the Pacific.

Western Canada Grain Storage

Note: Port Arthur, Fort William, Keewatin, Kenora and points in Manitoba, Alberta, Saskatchewan and British Columbia, by crop years in bushels. Source: Board of Grain Commissioners for Canada.

1950-51	423,716,670	1933-34	342,933,460
1949-50	407,378,970	1932-33	341,524,260
1948-49	403,723,470	1931-32	338,623,260
1947-48	398,911,420	1930-31	326,082,210
1946-47	411,727,920	1929-30	305,744,790
1945-46	475,739,670	1928-29	306,744,790
1944-45	506,832,090	1927-28	243,508,200
1943-44	511,339,787	1926-27	238,636,560
1942-43	512,052,896	1925-26	229,780,620
1941-42	509,353,519	1924-25	227,914,620
1940-41	424,493,047	1923-24	216,994,620
1939-40	341,625,770	1922-23	203,927,420
1938-39	340,160,420	1921-22	197,463,420
1937-38	338,941,820	1920-21	197,033,620
1936-37	340,730,120	1919-20	192,451,970
1935-36	341,976,680	1918-19	189,489,964
1934-35	343,253,660	1917-18	172,370,000

U.S. Dockage in Wheat

Note: Supervisors' samples. 1949 crop.
Source: USDA

% of dockage	Hard red spring cars	%	Durum cars	%	Red durum cars	%
0	3,013	21.0	564	16.3	14	10.7
1	4,743	32.9	942	27.2	30	22.9
2	2,743	19.0	747	21.6	19	14.5
3	1,570	10.9	479	13.8	15	11.4
4	934	6.5	290	8.4	17	13.0
5	606	4.2	183	5.3	12	9.2
6	311	2.2	112	3.2	4	3.1
7	180	1.2	52	1.5	6	4.6
8	115	.8	30	.9	2	1.5
9	71	.5	21	.6	6	4.6
10	49	.3	15	.4	1	.8
11	28	.2	6	.2	..	..
12	17	.1	8	.2	..	..
13	8	.1	2	.1	2	1.5
14	4	..	4	.1	1	.8
15	3	..	1	..	1	.8
16	1	..	1	..	..	..
17	1	..	1	..	1	.8
18	3	..	..	..	..	..
22	..	..	1	.1	..	..
34	1	..	..	..	..	..
35	1	..	..	..	..	..
36	..	..	1	.1	..	..
Total	14,492	..	3,460	..	131	..

% of dockage	Hard red winter cars	%	Soft red winter cars	%	White cars	%
0	23,762	75.5	5,351	85.0	6,432	76.4
1	5,954	18.9	657	10.4	1,420	16.9
2	1,029	3.3	174	2.8	352	4.2
3	365	1.2	58	.9	113	1.3
4	191	.6	34	.5	54	.6
5	93	.3	8	.1	20	.2
6	39	.1	8	.1	9	.1
7	19	1	3	..	12	.1
8	11	..	1	..	3	..
9	6	..	..	..	4	..
10	7	..	4	.1	1	..
11	9	..	..	..	1	..
12	4	..	..	..	..	..
13	3	..	..	..	..	..
14	1	..	..	..	..	..
15	1	..	..	..	..	..
16	..	..	..	..	..	..
17	1	..	..	..	1	..
18	1	..	..	..	..	..
Total	31,496	..	6,298	..	8,422	..

Seattle Grain Receipts

Note: By calendar years, in carlots.
Source: Seattle Grain Exchange.

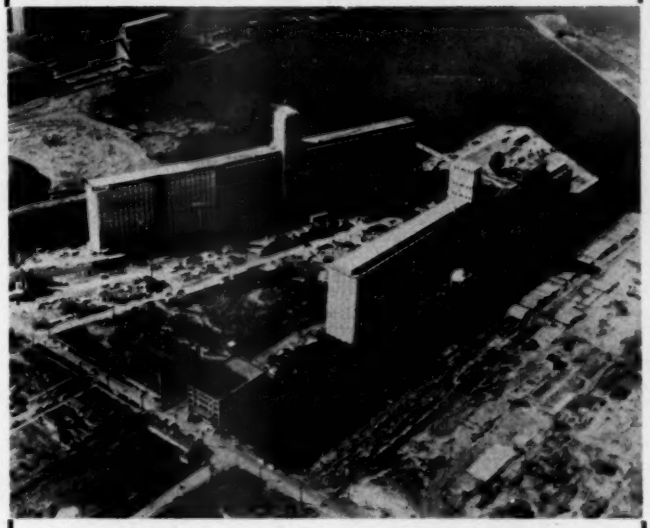
	Wheat	Oats	Barley	Corn	Rye
1950..	13,382	604	749	751	3
1949..	15,385	629	539	965	17
1948..	11,700	494	809	497	29
1947..	14,095	749	582	1,108	9
1946..	13,397	572	583	641	17
1945..	11,137	743	895	639	27
1944..	8,478	1,319	421	700	10
1943..	10,836	986	942	505	49
1942..	7,772	598	605	681	69
1941..	8,582	426	240	481	73
1940..	7,255	456	244	722	26
1939..	8,616	538	185	667	7
1938..	8,556	622	160	498	95
1937..	8,485	100	195	9	161
1936..	6,063	26	763	139	39
1935..	6,482	338	118	18	33
1934..	9,162	1,190	159	476	49
1933..	8,857	426	204	432	30
1932..	6,793	302	162	378	34
1931..	11,271	863	343	771	28
1930..	8,657	317	147	1,138	31

Tacoma Grain Receipts

Note: By calendar years, in carlots.
Source: Tacoma Merchants Exchange.

	Wheat	Corn	Oats	Rye	Barley
1950..	7,059	885	354	1	490
1949..	9,825	893	350	5	490
1948..	7,648	310	250	4	262
1947..	9,525	1,090	216	..	405
1946..	12,000	599	317	5	336
1945..	8,313	318	368	3	766
1944..	8,244	325	316	16	487
1943..	8,455	337	416	19	890
1942..	6,593	520	243	45	431
1941..	9,081	551	227	4	358
1940..	9,042	647	194	1	265
1939..	10,287	498	211	2	290
1938..	9,016	450	240	10	225
1937..	6,193	144	260	13	84
1936..	7,559	36	194	122	46
1935..	9,368	40	191	4	113
1934..	8,875	294	84	3	139
1933..	7,580	299	126	4	142
1932..	6,239	291	92	3	116
1931..	8,124	537	180	10	200
1930..	8,192	590	102	13	145

GTA's modern 11,500,000 bushel terminal elevator at head of the Great Lakes



Choice Milling Wheat for America's Bread

FARMERS UNION GRAIN TERMINAL ASSOCIATION specializes in handling the wheat crop for 150,000 grain farmers in the great Northwest.

Much of this crop is from the choice spring wheat areas of Western North Dakota and Montana.

Wheat that meets exacting milling requirements as to quality and protein can be furnished from modern terminal and subterminal elevators at Superior-Duluth, Minneapolis, St. Paul, Lewistown, Shelby, Great Falls and Spokane.

Western terminals are strategically located to serve West Coast mills with fancy Montana wheat from the Great Falls area.

Farmers Union

GRAIN TERMINAL ASSOCIATION

Marketing and Merchandising Grain for 150,000 Producers

ST. PAUL - - - - - - - MINNEAPOLIS

Duluth-Superior Lake Shipments of Grain

Note: Domestic and bonded grain and flaxseed from Duluth-Superior to American and Canadian ports in 1950 and by calendar years, in bushels, 000's omitted. **Source: Duluth Board of Trade**

American ports—	Domestic wheat				Bonded wheat	Coarse grain				Flax'd
	Spring	Durum	Winter	Totals		Corn	Oats	Rye	Barley	
Buffalo	37,186	1,536	4,120	42,842	...	8,164	2,701	261	2,671	6,684
Oswego	1,531	795	...	2,326	...	278	...	...	666	220
Cleveland	982	...	...	982	...	...	...	...	...	1,084
Milwaukee	...	...	...	...	...	...	...	...	802	...
Manitowoc	...	...	...	...	...	...	...	...	206	...
Erie	515	203	...	718	...	...	...	...	...	...
Toledo	...	...	...	...	...	...	653	...	...	...
Detroit	359	...	...	359	...	...	...	...	...	...
Totals	40,573	2,534	4,120	47,227	...	8,382	3,354	261	4,345	7,988
Canadian ports—										
Prescott	283	37	...	320	...	643	...	...	...	...
Montreal	887	12	5	904	...	3,412	...	...	108	92
Walkerville	...	...	...	...	...	281	...	...	...	...
Pt. Colborne	2,644	54	95	2,793	...	2,065	...	...	429	326
Three Rivers	...	...	...	...	...	2,774	...	...	...	...
Toronto	336	4	27	367	...	619	...	...	...	147
Goderich	...	...	...	...	...	108	...	...	...	...
Humberston	293	...	...	293	...	...	...	...	...	...
Cardinal	...	...	...	...	...	541	...	...	...	...
Owen Sound	...	...	...	...	...	106	...	...	...	...
Sorel	...	...	...	...	...	104	...	...	...	...
Grand totals	45,016	2,641	4,247	51,904	...	19,036	3,354	261	4,873	8,553
Totals, 1949	79,858	11,166	9,499	100,523	...	14,867	11,390	710	11,047	4,516
1948	78,175	3,858	2,813	84,846	...	9,309	5,631	283	3,562	10,595
1947	68,397	10,941	4,015	83,353	...	3,869	9,667	...	6,683	4,244
1946	87,471	3,425	5,264	96,160	...	...	11,955	...	2,962	5,190
1945	127,605	679	8,916	137,200	...	3,733	17,946	...	4,935	5,675
1944	101,654	2,467	3,910	108,031	...	354	1,831	80	492	4,682
1943	51,548	471	5,317	57,336	...	1,936	316	495	3,691	7,760
1942	38,819	2,782	4,092	46,230	...	14,093	846	1,148	2,549	6,623
1941	38,286	3,592	4,974	46,852	15,967	20,306	1,433	3,756	4,710	2,657
1940	36,887	5,258	4,137	46,282	2,343	13,531	4,257	3,127	5,057	5,148
1939	30,792	5,608	4,634	40,034	...	13,564	15,552	4,448	6,704	4,192
1938	34,918	3,955	3,473	42,346	...	8,123	15,558	5,924	12,580	1,481
1937	21,077	1,418	3,500	25,995	1,194	3,572	8,522	5,355	9,150	970
1936	8,014	342	1,176	9,532	505	2,325	6,239	3,080	4,460	992
1935	12,376	724	2,228	15,328	506	1,028	8,514	2,767	7,483	2,420
1934	23,387	258	1,697	25,342	197	7,144	9,497	1,189	4,090	237
1933	34,865	4,683	2,966	42,504	427	5,865	4,258	3,153	4,553	1,902
1932	31,981	6,946	1,053	39,981	318	24	821	2,070	2,637	3,949
1931	24,897	14,130	2,461	41,788	135	2,314	2,930	1,078	1,971	3,593
1930	31,220	27,761	4,312	63,293	634	1,757	7,101	1,871	6,312	6,478
1929	30,029	28,966	7,728	66,722	380	2,063	3,309	4,938	14,803	3,621
1928	38,744	47,508	6,526	92,778	839	487	2,923	12,619	29,136	5,919
1927	45,893	36,906	11,474	94,274	787	...	7,643	31,378	22,616	9,052

Chicago Grain, Flour and Feed Movement

Note: By calendar years, 000's omitted. **Source: Chicago Board of Trade.**

RECEIPTS

	Flour, sacks	Bushels						Tons	
		Wheat	Corn	Oats	Rye	Barley	Flaxseed	Mill-feed*	Oil cake
1950	24,446	22,110	119,993	30,467	5,338	14,555	2,388	229	39
1949	25,908	36,963	113,946	37,802	9,492	15,633	1,273	264	32
1948	24,665	26,616	111,912	30,635	4,515	16,792	2,239	210	29
1947	27,597	44,113	152,142	35,956	1,109	19,070	944	274	15
1946	27,001	21,217	116,092	43,345	2,145	17,349	761	372	..
1945	29,841	27,797	101,938	33,052	5,887	19,734	1,069	505	16
1944	25,364	67,473	88,780	17,635	4,012	20,919	1,102	486	21
1943	23,549	48,744	94,714	21,085	11,073	20,911	1,621	455	19
1942	23,034	20,529	105,817	19,150	3,981	16,329	2,181	238	15
1941	19,764	22,050	100,166	20,859	5,535	13,833	1,818	172	8
1940	21,354	28,164	93,127	18,544	3,009	12,041	1,052	151	1
1939	22,687	26,710	83,985	21,946	2,009	12,130	366	158	1
1938	21,499	30,096	135,801	24,544	3,307	10,800	796	141	1
1937	20,237	38,106	66,727	24,445	5,285	10,819	978	105	13
1936	20,300	23,482	60,503	21,987	7,255	15,691	862	120	1
1935	18,355	21,701	32,970	17,664	5,396	8,240	1,534	96	1
1934	17,554	23,780	55,500	14,413	8,688	10,503	970	116	2
1933	17,344	13,501	92,879	21,163	6,712	8,771	1,398	151	3
1932	17,228	13,898	70,892	28,246	842	4,130	804	156	4
1931	20,394	60,173	57,405	17,782	1,913	4,078	1,464	178	5
1930	22,336	27,759	73,678	29,210	3,578	7,163	1,023	185	2

SHIPMENTS

	Flour, sacks	Bushels						Tons	
		Wheat	Corn	Oats	Rye	Barley	Flaxseed	Mill-feed*	Oil cake
1950	7,655	13,845	55,919	22,190	4,050	2,299	239	418	2
1949	9,732	26,751	61,809	26,026	3,560	3,297	366	518	2
1948	10,055	24,034	49,996	22,068	2,119	3,085	62	411	2
1947	11,174	34,986	83,103	25,224	1,408	4,080	214	470	..
1946	10,868	19,029	59,583	42,670	2,876	4,602	352	518	..
1945	5,108	26,530	50,366	29,633	10,588	7,918	203	700	4
1944	9,310	59,021	42,150	14,097	7,045	6,015	295	688	4
1943	10,884	43,177	58,406	17,055	2,855	8,681	482	758	2
1942	11,125	24,230	63,746	18,019	3,277	5,248	1,401	723	4
1941	11,049	13,442	66,979	16,021	2,729	3,873	457	609	6
1940	13,575	20,087	66,224	16,233	2,504	2,620	726	530	5
1939	14,206	23,395	54,199	20,763	1,877	2,707	390	491	3
1938	13,820	25,170	98,580	22,669	1,967	2,956	150	465	1
1937	12,914	32,009	30,025	27,064	6,514	3,012	812	422	35
1936	11,586	20,762	25,333	17,915	6,544	3,310	335	388	1
1935	12,932	14,520	14,878	11,561	8,261	2,273	400	320	1
1934	11,834	15,011	39,327	13,389	4,961	2,279	89	344	1
1933	10,678	16,282	51,742	17,577	1,978	1,616	31	339	2
1932	10,176	17,225	47,607	24,754	1,242	918	9	428	9
1931	9,920	10,293	28,700	19,898	3,227	3,011	45	412	85
1930	14,449	29,649	37,428	24,077	5,513	2,350	10	594	546

*Thousands not omitted in millfeed shipments.

Chicago Movement

Note: By routes, 000's omitted. **Source: Chicago Board of Trade.**

RECEIPTS

By lake—	Bushels			
	Wheat	Corn	Oats	Rye
Ft. William	276	...	...	3,676
Toledo	450	...	...	...
Totals, lake	726	...	...	3,676

	Flour, sacks	Bushels			
		Wheat	Corn	Oats	Soybeans
Ill. waterways	...	1,604	45,919	5,727	6,676
N. Western	2,947	759	9,207	3,540	295
Ill. Central	438	858	11,992	3,810	1,968
R. Island	474	708	4,972	2,953	307
Burlington	6,506	1,974	8,190	4,191	1,126
Gulf, Mobile & Ohio	1,038	643	2,196	1,552	539
Chi. & E.I.	539	836	4,958	962	1,142
C., M., St. P. & P	7,276	661	7,422	2,180	315
Wabash	417	1,325	3,166	1,596	946
Gt. West.	1,398	1,074	2,765	1,184	88
Santa Fe	3,952	198	1,087	770	121
Soo Line	24	882	39	157	4
E. J. & E.	...	22	177	278	80
E. & S. E. Line	337	9,034	12,391	1,960	3,536
Motor trucks	...	812	5,512	507	1,867
Totals, 1950	24,446	22,110	119,993	30,467	19,492
Totals—					
1949	25,340	36,963	113,946	37,802	19,119
1948	24,665	26,616	111,912	30,635	14,616
1947	27,597	44,113	152,142	35,956	13,923
1946	27,001	21,217	116,092	43,345	17,118
1945	30,441	27,797	101,938	33,052	18,545
1944	25,364	67,463	88,780	17,635	13,045
1943	23,549	44,440	81,458	17,140	18,136
1942	23,034	20,529	105,817	19,150	9,784
1941	19,764	22,050	100,166	20,859	12,322
1940	21,354	28,164	93,127	18,544	9,910
1939	22,687	26,710	83,985	21,946	..
1938	21,499	30,069	155,801	24,544	..
1937	20,237	38,106	66,727	24,445	..
1936	20,300	20,169	58,457	21,954	..
1935	18,355	21,701	32,970	17,664	..
1934	17,554	23,780	55,500	14,413	..

SHIPMENTS

	Flour, sacks	Bushels			
		Wheat	Corn	Oats	Soybeans
By lake	...	3,932	25,542	437	2,530
Ill. waterways	...	832	...	65	...
N. West.	...	365	798	81	32
Ill. Central	614	485	2,891	1,773	976
R. Island	49	4	8	6	32
Burlington	72	...	1	...	...
Gulf, Mobile & Ohio	89	656	57	160	8
C. & E. Ill.	495	78	85	180	...
C., M., St. P. & P.	101	2	46	66	113
Wabash	888	1,627	2,703	1,168	1,716
Gt. West.	40	...	...	...	...
Santa Fe	137	19	65	7	...
Soo Line	5	...	...	...	...
E. & S. E. Lines	4,603	5,846	23,723	17,247	2,871
Totals, 1950	7,655	13,845	55,919	21,190	8,278
Totals—					
1949	9,537	16,860	37,288	24,444	8,108
1948	10,055	24,034	49,996	22,068	6,078
1947	11,174	34,986	83,103	25,224	9,431
1946	10,868	19,029	59,583	42,670	9,298
1945	10,012	19,265	46,311	28,121	4,486
1944	9,330	59,021	42,150	14,097	4,324
1943	10,884	43,177	58,406	17,055	5,230
1942	11,125	24,230	63,746	18,019	3,519
1941	11,049	13,442	66,979	16,021	3,781
1940	13,575	20,287	66,224	16,233	4,325
1939	14,206	23,395	54,199	20,763	..
1938	13,820	25,170	98,580	22,669	..
1937	12,914	32,009	30,025	27,064	..
1936	11,586	11,566	15,784	17,091	..
1935	12,932	14,520	14,878	11,561	..
1934	11,834	15,011	39,327	13,389	..

Brown-Duvel Moisture Tester

This is a distillation type of moisture tester in which a certain quantity of grain or ground material is cooked or heated in mineral oil of certain quality and according to prescribed directions as to length of time of heating and the final temperature attained. The final temperature used varies somewhat for different commodities or materials. During the heating the moisture in the grain or material is distilled off, collected and measured.

They look alike, but—

Weevil-Cide is not a simple mixture of chemical compounds. Its special effectiveness does not depend on formulation alone. Rather, an exclusive processing method links its chief components.

That is why the frequent and plausible competitive claims that other products of similar formulation are "just as good" or "identical with Weevil-Cide" do not hold good. If such claims were true, Weevil-Cide would not be the common standard of comparison. It would be "just another" grain fumigant.

THE Weevil-Cide COMPANY

THE DEPENDABLE GRAIN FUMIGANT

1323 UNION AVE.
KANSAS CITY 7, MO.

Kansas City Receipts, Shipments

Note: In bushels. Source: Kansas City Board of Trade.

RECEIPTS

1950—	Wheat	Corn	Oats
January	7,587,000	2,380,000	546,000
February	5,047,200	1,203,800	300,000
March	5,020,200	2,123,300	452,000
April	5,581,800	2,051,900	364,000
May	5,011,200	2,439,500	334,000
June	12,865,400	2,176,000	214,000
July	29,847,600	1,858,100	490,000
August	14,949,000	2,165,800	672,000
September	9,516,600	1,348,100	554,000
October	7,993,800	2,917,200	362,000
November	6,604,200	5,759,600	450,000
December	6,778,800	5,195,200	358,000
Total	117,802,800	31,618,300	5,096,000
1949—	Wheat	Corn	Oats
January	5,686,200	2,412,300	608,000
February	4,870,800	1,416,100	568,000
March	10,918,800	1,958,400	642,000
April	6,224,400	2,317,100	572,000
May	10,065,600	1,975,400	420,000
June	16,372,800	2,040,000	316,000
July	30,598,200	1,499,400	684,000
August	8,148,600	2,359,600	866,000
September	4,217,400	2,046,800	474,000
October	5,423,400	4,083,400	588,000
November	4,393,800	6,266,200	328,000
December	4,811,400	4,608,700	424,000
Total	111,731,400	32,983,400	6,490,000
1948—	Wheat	Corn	Oats
January	10,431,000	2,575,500	542,000
February	4,926,600	1,203,600	220,000
March	4,712,400	1,013,200	296,000
April	7,680,600	2,357,900	398,000
May	9,711,000	1,744,200	296,000
June	24,408,200	2,230,400	346,000
July	54,302,400	1,302,200	608,000
August	18,766,800	892,500	898,000
September	9,129,600	1,232,500	582,000
October	7,106,400	2,708,100	532,000
November	6,949,800	3,777,400	626,000
December	9,505,800	3,638,000	700,000
Total	156,630,600	24,675,500	5,944,000

SHIPMENTS

1950—	Wheat	Corn	Oats
January	5,230,900	1,666,500	348,000
February	3,903,200	1,015,500	226,000
March	3,479,900	1,194,000	248,000
April	2,856,000	1,158,000	222,000
May	2,390,200	1,213,500	178,000
June	5,191,800	1,215,000	74,000
July	15,085,800	702,000	334,000
August	8,743,100	927,000	520,000
September	5,480,800	1,071,000	352,000
October	5,033,700	1,534,500	266,000
November	6,881,600	3,316,500	326,000
December	5,919,400	3,232,500	252,000
Total	70,196,400	18,246,000	3,346,000
1949—	Wheat	Corn	Oats
January	6,215,200	1,693,500	492,000
February	5,127,200	1,800,500	436,000
March	7,590,500	1,017,000	492,000
April	7,282,800	1,009,500	372,000
May	6,497,400	849,000	326,000
June	4,876,900	858,000	188,000
July	11,650,100	603,000	386,000
August	6,155,700	771,000	576,000
September	3,704,300	735,000	382,000
October	3,887,900	1,200,000	378,000
November	4,404,700	3,003,000	352,000
December	4,397,900	1,719,000	330,000
Total	72,790,600	15,088,500	4,710 000
1948—	Wheat	Corn	Oats
January	10,482,200	855,000	312,000
February	8,273,900	969,000	282,000
March	7,969,600	1,108,500	158,000
April	6,686,100	1,258,500	258,000
May	6,806,800	1,062,500	194,000
June	10,361,500	987,000	66,000
July	13,033,200	667,500	406,000
August	14,694,800	466,500	592,000
September	7,162,100	288,000	404,000
October	7,066,900	1,045,500	404,000
November	6,657,200	1,486,500	466,000
December	7,636,400	1,696,500	550,000
Total	106,829,700	11,892,000	4,092,000

St. Louis Grain Receipts

Note: By rail, water and trucks, in bushels, 000's omitted. Source: St. Louis Merchants Exchange.

	Wheat	Corn	Oats	Rye	Barley
1950..	26,752	41,565	8,111	77	1,508
1949..	30,399	38,542	9,141	41	1,354
1948..	37,407	28,604	6,738	49	2,134
1947..	27,744	36,667	6,144	12	1,701
1946..	18,374	25,325	10,697	90	2,209
1945..	21,639	29,563	9,469	97	3,068
1944..	29,978	17,825	4,506	322	2,719
1943..	19,651	25,959	8,748	331	3,902
1942..	11,880	26,042	3,240	886	1,902
1941..	15,035	13,491	2,784	149	2,165
1940..	19,501	14,840	3,466	44	1,801
1939..	26,752	17,189	3,010	28	1,859
1938..	21,153	30,851	4,483	85	1,855
1937..	22,396	22,579	5,513	137	2,171
1936..	14,916	20,082	7,256	176	2,329
1935..	12,007	10,346	4,909	161	1,426

Canadian Wheat Inspections

Note: At Winnipeg and other points in western Canada, by crop years, ending July 31, in bushels. Source: Board of Grain Commissioners for Canada.

1949-50..	302,472,966	1940-41..	294,190,690
1948-49..	285,455,775	1939-40..	373,710,121
1947-48..	235,781,669	1938-39..	278,956,568
1946-47..	311,866,664	1937-38..	119,138,676
1945-46..	287,038,065	1936-37..	183,673,022
1944-45..	414,222,513	1935-36..	218,140,000
1943-44..	396,282,814	1934-35..	227,362,000
1942-43..	170,298,564	1933-34..	229,193,694
1941-42..	296,749,848		

Chicago Lake Shipments

Note: In sacks and bushels, 000's omitted. Source: Chicago Board of Trade.

FLOUR AND WHEAT

To:	1949 Flour sacks	1949 Wheat bu.	1950 Flour sacks	1950 Wheat bu.
Buffalo	....	4,357	....	3,323
Pt. McNicoll	....	356	....	....
Erie	....	....	....	....
Tiffin	....	582	....	....
Oswego	....	2,504	....	609
Total	....	7,799	....	3,932

CORN AND OATS (BU.)

To:	1949 Corn	1949 Oats	1950 Corn	1950 Oats
Buffalo, N.Y.	7,551	1,225	6,156	437
Albany, N.Y.	....	....	58	....
Oswego, N.Y.	....	....	2,464	....
Collingwood, Ont.	....	....	1,329	....
Midland, Ont.	....	....	641	....
Sligo, Ireland	....	....	70	....
Windsor, Ont.	....	....	425	....
Cardinal, Ont.	1,471	....	1,082	....
Goderich, Ont.	895	....	1,981	....
Kingston, Ont.	....	....	111	....
Montreal, Que.	3,712	....	2,829	....
Prescott, Ont.	785	....	618	....
Tiffin, Ont.	198	....	213	....
Walkerville, Ont.	2,490	367	2,827	....
Sarnia, Ont.	2,490	367	197	....
Owen Sound, Ont.	109	....	221	....
Toronto, Ont.	933	....	691	....
Pt. Colborne, Ont.	5,999	....	960	....
Pt. McNicoll, Ont.	192	....	2,658	....
Sorel, Que.	83	....	111	....
Three Rivers, Que.	103	....	....	....
Total	24,245	1,592	25,542	437

Duluth Wheat Movement

Note: In bushels, 000's omitted. Source: Duluth Board of Trade.

RECEIPTS

	Spring	Winter	Durum	Totals
1950	64,345	5,768	6,810	76,923
1949	94,252	10,739	17,962	122,953
1948	94,710	5,470	12,325	112,505
1947	83,359	4,924	18,834	107,017
1946	102,681	9,020	5,960	117,661
1945	126,545	7,363	9,422	145,330
1944	116,033	7,920	4,186	128,139
1943	74,856	6,734	5,797	87,387
1942	45,078	4,061	9,200	*58,975
1941	49,928	5,126	10,790	65,844
1940	42,552	8,732	4,022	55,306
1939	35,730	9,536	3,808	49,074
1938	42,718	4,142	5,705	52,565
1937	23,826	3,554	3,553	30,933
1936	7,754	2,319	1,799	11,892
1935	14,730	3,548	1,780	20,768
1934	17,750	4,922	1,965	24,637
1933	38,537	5,923	1,442	45,902
1932	33,367	6,108	1,371	40,846
1931	22,712	17,776	4,060	44,548
1930	36,097	33,901	2,780	72,778

SHIPMENTS

	Spring	Winter	Durum	Totals
1950	55,118	5,292	4,205	64,615
1949	92,163	11,119	13,606	116,888
1948	89,062	3,452	7,058	99,572
1947	80,181	4,936	14,398	99,515
1946	105,739	4,661	6,117	116,717
1945	133,407	2,867	9,576	145,850
1944	121,101	4,394	4,809	130,304
1943	87,491	5,640	3,154	96,285
1942	41,948	4,398	6,967	53,920
1941	40,428	5,076	4,494	49,998
1940	37,306	7,645	4,243	49,194
1939	32,207	6,929	3,940	43,076
1938	36,161	3,879	4,786	39,826
1937	23,669	3,501	4,232	31,402
1936	14,846	2,095	8,544	25,485
1935	14,476	3,220	2,569	20,265
1934	24,217	6,293	1,720	32,230
1933	35,161	6,719	3,118	44,998
1932	32,845	10,012	1,152	44,009
1931	25,510	18,043	2,538	46,691
1930	32,385	30,682	5,228	68,295

*Includes 636 bus feed wheat received and 677 bus shipped.

White wheat received in 1937, 40,300 bus; 1936, 20,000; shipped in 1937, 69,000; 1936, 35,000.

New York Free Lighterage

HUDSON RIVER

New York side: Battery to 135th Street.

New Jersey side: National Storage Docks, Communipaw, to and including George Washington Bridge.

EAST RIVER AND HARLEM RIVER

New York side: Battery to Jerome Avenue Bridge, including Harlem River side of Ward's Island and Randall's Island.

Brooklyn side: From Pot Cove, Astoria, L. I., to and including 69th Street, South Brooklyn (Bay Ridge), including Newton Creek, Dutch Kills Creek and Whale Creek points in the Wallabout Canal and to Hamilton Avenue Bridge, Gowanus Canal.

NEW YORK BAY

New York Bay: Points on north and east shore of Staten Island, between Bridge Creek (Arlington) and Clifton (Hylan Boulevard), both inclusive, and including Shooters Island.

Points on the New Jersey shore on New York Bay, and on Kill von Kull between Constable Hook and Avenue C, Bayonne City, opposite Port Richmond, S. I.

KILL VON KULL, NEWARK BAY, PASSAIC AND HACKENSACK RIVERS

Kill von Kull, Newark Bay, Passaic and Hackensack Rivers: To and from points on the New Jersey shore between Avenue C, Bayonne, to and including Neck of Bergen Point (except Safety Ins. Wire and Cable Co. dock).

To and from points on the east shore of Newark Bay, beyond Neck of Bergen Point to and including C. R. R. of N.J. main line (Newark Bay) bridge.

To and from points beyond C. R. R. of N.J. main line (Newark Bay) bridge to Newark and Kearny, N.J., inclusive, and points on the Hackensack River to and including Newark-Jersey City turnpike bridge.

STATEN ISLAND SOUND

Staten Island Sound: To and from points on New Jersey shore from the C. R. R. of N. J. main line (Newark Bay) bridge to and including Perth Amboy, N. J., on Staten Island Sound.

Canadian Lake Shipments of Grain

Note: In bushels, 000's omitted. Source: Dominion Bureau of Statistics

	Wheat	Oats	Barley	Rye	Flaxseed	Total
1950*	137,047	27,358	26,762	7,852	3,502	202,521
1949	164,195	44,074	35,634	12,583	8,490	264,976
1948	133,422	37,610	33,564	6,808	8,353	219,757
1947	167,334	46,860	29,827	9,909	2,465	256,395
1946	147,431	56,006	30,777	3,771	2,184	240,170
1945	344,406	84,928	45,187	4,828	4,384	483,732
1944	304,249	80,011	56,344	8,156	7,205	455,964
1943	246,159	39,406	44,034	5,439	8,876	343,915
1942	178,511	17,042	10,510	1,030	4,040	211,132
1941	232,974	9,046	11,574	6,092	2,337	262,023
1940	174,691	16,826	10,021	3,609	1,239	206,386

*Subject to revision.

Omaha Grain Movement

Note: By calendar years, in bushels, 000's omitted. Source: Omaha Grain Exchange.

	Wheat	Corn	Oats	Rye	Barley
RECEIPTS					
1950..	33,019	39,719	4,797	1,195	724
1949..	38,955	38,301	7,234	1,223	1,966
1948..	46,770	25,889	7,441	1,695	1,668
1947..	45,888	50,407	8,211	1,624	3,776
1946..	37,412	32,103	9,933	2,280	3,645
1945..	33,572	53,603	12,674	3,049	5,144
1944..	28,692	31,672	7,773	1,811	4,404
1943..	37,366	38,809	12,234	3,180	8,490
1942..	18,358	24,649	7,268	1,234	5,112
1941..	22,336	12,891	2,682	843	2,495
1940..	14,983	19,297	1,885	533	260
1939..	21,567	11,075	4,156	700	658
1938..	23,698	15,352	4,367	1,132	830
1937..	22,618	14,061	7,760	931	1,221
1936..	20,815	16,141	6,244	627	1,622
1935..	16,489	7,620	7,688	491	2,261
1934..	15,427	17,417	1,884	202	200
1933..	14,674	16,902	3,370	659	414
1932..	17,594	5 961	2,228	225	133
1931..	40,408	13,145	3,099	132	269
1930..	44,664	24,369	7,048	784	1,339
SHIPMENTS					
1950..	26,496	35,068	4,519	1,191	786
1949..	32,068	29,537	6,920	1,003	1,837
1948..	27,580	20,041	7,386	1,941	1,667
1947..	33,875	51,104	7,502	1,330	3,887
1946..	34,108	33,526	12,290	2,217	3,679
1945..	22,551	50,908	10,112	2,746	5,518
1944..	17,758	33,491	8,270	1,611	3,474
1943..	37,912	42,152	10,402	2,840	8,143
1942..	8,732	26,829	6,851	1,403	4,923
1941..	9,703	17,263	2,113	610	2,211
1940..	7,026	9,770	1,881	469	274
1939..	9,441	12,573	4,027	663	877
1938..	14,306	12,775	4,973	1,070	691
1937..	13,650	7,450	8,910	914	869
1936..	12,557	13,663	8,939	758	2,302
1935..	9,348	10,440	3,636	374	1,145
1934..	9,292	16,657	3,196	324	154
1933..	16,821	9,384	1,796	497	263
1932..	13,348	3,742	1,572	157	102
1931..	25,442	14,778	2,542	108	344
1930..	31,766	24,822	8,020	883	1,582

1950—	Wheat	Corn	Oats	Rye	Barl'y
RECEIPTS					
January ..	1,807	4,706	515	49	114
February ..	1,320	2,842	311	22	96
March	1,370	2,279	279	27	88
April	1,260	1,559	342	38	80
May	1,123	1,398	234	43	142
June	1,219	2,338	183	20	8
July	9,119	2,120	272	88	14
August ...	7,283	1,663	1,070	357	34
September .	3,276	2,289	561	212	50
October ...	2,321	3,537	370	165	16
November .	1,394	6,582	375	118	58
December .	1,527	9,395	285	55	24
Total ...	33,019	39,719	4,797	1,195	724
SHIPMENTS					
January ..	2,096	3,869	481	101	86
February ..	1,093	3,327	391	50	136
March	1,194	2 820	271	45	112
April	845	1,471	313	27	94
May	1,023	1,333	253	50	86
June	853	1,818	179	25	34
July	4,941	2,282	201	47	26
August ...	6,277	1,328	852	339	56
September .	2,944	2,448	518	192	50
October ...	2,994	2,477	398	123	26
November .	1,576	4,134	409	108	58
December .	1,351	7,761	343	83	22
Total ...	26,496	35,068	4,519	1,191	786

U.S. Carload Wheat Inspection by Crop Years

Note: Carloads by crop years. **Source: USDA**

	1947-48	1948-49	1949-50
Dark nor. spring—			
No. 1 heavy	16,278	53,885	39,020
No. 1	27,653	13,715	15,753
No. 2	16,499	7,836	7,586
No. 3	17,722	3,729	2,975
All others	8,859	1,685	920
Totals	86,421	80,550	65,354
Northern spring—			
No. 1 heavy	16,019	23,242	13,873
No. 1	16,243	16,929	12,035
No. 2	6,872	11,940	5,955
No. 3	2,950	7,551	2,586
All others	1,750	4,623	1,356
Totals	43,834	64,285	35,805
Red spring—			
No. 1 heavy	4	32	26
No. 1	20	34	76
No. 2	7	56	64
No. 3	6	349	208
All others	6	281	101
Totals	43	752	475
Tot. hard red spring	**130,298**	**145,587**	**101,634**
Hard amber durum—			
No. 1	8,320	6,388	8,641
No. 2	3,393	5,409	4,623
No. 3	899	2,698	3,050
All others	190	621	501
Totals	12,802	15,116	16,815
Amber durum—			
No. 1	3,692	1,199	1,646
No. 2	5,160	2,513	1,707
No. 3	994	950	768
All others	227	251	172
Totals	10,073	4,913	4,293
Durum—			
No 1	1,066	314	476
No. 2	635	787	545
No 3	332	585	476
All others	273	577	203
Totals	2,306	2,263	1,700
Red durum—			
No. 1	717	1,204	671
No. 2	608	479	190
No. 3	103	102	35
All others	139	102	56
Totals	1,567	1,887	952
Total durum	**26,748**	**24,179**	**23,760**
Dark hard winter—			
No. 1	126,366	68,987	56,051
No. 2	20,751	21,077	29,367
No. 3	3,123	5,637	21,785
All others	3,485	5,629	18,710
Totals	153,725	101,330	125,913
Hard winter—			
No. 1	283,192	171,338	73,841
No. 2	90,842	140,755	70,565
No. 3	14,952	41,109	36,822
All others	14,008	35,243	22,043
Totals	402,994	388,445	203,271
Yellow hard winter—			
No. 1	446	10,287	2,341
No. 2	438	6,984	3,327
No. 3	66	1,593	1,355
All others	75	1,600	536
Totals	1,025	20,464	7,589
Tot. hard red winter	**557,744**	**510,239**	**336,773**
Red winter—			
No. 1	4,189	2,996	1,156
No. 2	22,330	26,623	20,554
No. 3	15,738	27,641	34,060
All others	13,326	20,930	16,406
Totals	55,583	72,190	72,176
Western red—			
No. 1	820	857	555
No. 2	155	172	109
No. 3	19	29	17
All others	20	45	20
Totals	1,014	1,103	701
Total soft red winter	**56,597**	**73,293**	**72,877**
Hard white—			
No. 1	4,761	3,483	4,131
No. 2	1,918	1,208	2,211
No. 3	281	198	413
All others	202	133	275
Totals	7,162	5,022	7,030
Soft white—			
No. 1	15,134	17,110	15,097
No. 2	11,516	15,096	9,820
No. 3	3,661	6,510	10,398
All others	770	1,819	4,307
Totals	31,081	40,535	39,622
White club—			
No. 1	3,672	3,424	7,274
No. 2	4,946	7,176	6,110
No. 3	553	824	343
All others	45	105	80
Totals	9,171	11,529	13,807
Western white—			
No. 1	2,094	2,998	4,992
No. 2	1,847	2,253	3,026
No. 3	114	128	120
All others	38	181	57
Totals	4,093	5,560	8,195
Total white wheat ..	**51,507**	**62,646**	**68,654**
Mixed wheat—			
No. 1	6,561	5,803	7,056
No. 2	7,524	9,851	9,115
No. 3	3,594	7,478	6,590
All others	1,638	3,816	4,322
Totals	19,317	26,748	27,083
Amber mixed durum—			
No. 1	155	103	151
No. 2	245	61	84
No. 3	77	53	58
All others	17	46	17
Totals	494	263	310
Mixed durum—			
No. 1	69	38	39
No. 2	77	35	29
No. 3	44	55	29
All others	21	52	31
Totals	211	180	128
Total mixed wheat ...	**20,022**	**27,191**	**27,521**
Grand totals	**842,916**	**843,135**	**631,219**

Lake Shipments of Principal Grains by Years

Note: In bushels. **Source: Lake Carriers' Assn.**

	Wheat	Corn	Oats	Rye	Barley	Flax
1949.....	280,405,523	39,380,802	57,157,005	13,289,116	47,665,283	13,632,572
1948.....	231,263,144	16,131,654	44,910,007	7,195,634	37,983,694	*19,762,230
1947.....	280,376,144	16,071,981	58,076,105	10,138,914	38,488,468	6,986,030
1946.....	255,783,664	4,323,223	68,526,783	3,770,656	34,032,056	7,582,881
1945.....	*493,842,070	7,844,546	*103,390,392	6,602,222	50,911,372	10,951,462
1944.....	420,477,260	2,445,975	82,331,805	8,756,022	56,891,162	12,521,079
1943.....	304,278,941	7,440,878	39,652,885	5,696,382	47,820,454	17,072,088
1942.....	225,299,883	29,115,742	17,857,684	2,298,174	13,090,823	11,545,620
1941.....	298,519,590	48,155,978	10,828,845	10,248,500	16,284,844	4,994,030
1940.....	230,843,754	54,604,924	21,395,184	6,971,034	15,074,230	6,971,631
1939.....	261,618,792	48,441,733	34,560,675	9,083,613	24,939,240	5,126,045
1938.....	192,810,389	*118,929,121	25,861,375	7,491,811	30,142,717	2,949,696
1937.....	140,401,415	10,651,648	19,450,244	9,044,294	25,249,834	1,371,194
1936.....	189,877,144	11,874,530	19,395,534	7,645,186	24,479,187	1,561,814
1935.....	189,809,917	1,643,981	21,225,998	3,523,663	15,616,394	2,902,821
1934.....	193,679,772	33,357,035	26,272,204	2,197,481	17,557,343	565,398
1933.....	210,366,591	52,558,501	24,372,754	6,268,764	8,692,130	3,018,665
1932.....	214,772,836	42,353,500	29,601,391	11,669,773	11,129,622	5,374,660
1931.....	250,382,301	19,138,878	30,145,693	4,685,209	23,991,404	5,989,383
1930.....	260,581,227	19,370,905	29,210,490	7,627,840	20,347,930	8,889,660
1929.....	243,562,993	21,652,751	36,526,660	12,217,439	31,838,606	5,241,764
1928.....	415,510,713	19,612,018	37,689,027	23,749,444	*62,743,187	10,441,992
1927.....	355,706,051	23,889,108	29,899,527	45,003,137	48,854,040	11,841,871

*Peak shipments.

U.S. Wheat Grades and Types

Note: Wheat inspections by grades and by crop years, ending June 30. Source: USDA

	1950	1949	1948	1947	1946	1945
No. 1	42.0	47.9	64	64	51	50
No. 2	27.7	30.2	23	25	30	27
No. 3	19.2	12.7	8	7	13	12
All others ...	11.1	9.2	5	4	6	11
	100	100	100	100	100	100

Note: Wheat inspections by type and by crop years, ending June 30.

	1950	1949	1948	1947	1946	1945
Hd. red spring	16	17	16	19	26	30
Durum	4	3	3	3	2	3
Hd. red winter	53	61	66	61	55	52
Soft red winter	12	9	7	6	7	6
White	11	7	6	8	8	7
Mixed wheat .	4	3	2	3	2	2
	100	100	100	100	100	100

Ergot

Ergot is a fungus disease of rye, other cereals, and wild grasses, in which the grains are replaced by dark-colored growths also called ergot. Medicaments prepared from ergotized cereal kernels are used to stop bleeding and cause abortion. Ergot is a powerful poison.

CROPS: PRODUCTION AND ACREAGE

World Wheat Production, Yield and Acreage

Note: 000's omitted **Source: USDA**

Continent and country	Acreage† Average 1940-44	Acreage† 1948	Acreage† 1949	Acreage† 1950‡	Yield per acre† ave. 1940-44	Production Ave. 1940-44	Production 1948	Production 1949	Production 1950‡
	1,000 acres				bu.	1,000 bu.			
N. America:									
Canada	22,466	24,196	27,541	27,931	18.8	422,559	386,345	367,496	461,730
Mexico	1,394	1,483	1,310	1,483	11.2	15,624	18,370	17,270	20,200
U. S.	54,017	73,917	76,559	61,741	17.1	925,984	1,313,534	1,141,188	1,026,755
Est. total§	77,930	98,660	105,410	90,255	...	1,365,000	1,719,000	1,528,864	1,508,685
Europe:									
Albania	123	....	....	....	11.2	1,381	.....	.....	.....
Austria	545	540	555	585	21.7	11,800	11,000	14,000	14,500
Belgium	492	385	420	465	36.2	17,820	15,065	21,899	22,560
Bulgaria	3,330	....	....	....	16.1	53,500	.....	.....	.....
Czechoslovakia	2,175	2,147	2,075	....	23.0	50,000	52,000	57,000	.....
Denmark	151	170	206	209	41.5	6,264	9,296	11,023	10,660
Finland	322	425	510	525	19.0	6,134	10,200	11,900	11,800
France	11,300	11,100	11,120	11,150	21.2	240,000	300,000	296,996	280,000
Germany:									
Western	....	2,240	2,280	2,530	...	.....	73,700	90,800	95,500
Greece	2,250	2,105	1,849	2,097	9.6	21,500	30,931	28,094	33,070
Hungary	4,080	....	....	....	19.5	79,762	.....	.....	.....
Ireland	499	540	380	375	33.5	16,735	18,500	14,586	12,000
Italy	12,464	11,860	12,100	12,100	19.7	245,812	250,000	275,000	285,000
Luxembourg	41	40	40	46	22.0	904	1,100	1,200	1,300
Netherlands	352	244	256	235	35.9	12,639	11,235	15,627	12,000
Norway	108	81	76	77	26.2	2,832	2,779	2,462	2,470
Portugal	....	1,724	1,717	1,720	...	.....	13,064	15,110	20,830
Rumania	5,600	....	....	....	14.3	80,000	.....	.....	.....
Spain	9,300	9,900	9,800	10,375	11.1	103,000	110,000	110,000	140,000
Sweden	700	780	759	837	24.0	16,854	25,806	25,615	27,120
Switzerland	225	211	206	216	35.2	7,929	7,156	9,320	7,900
U. K.	2,855	2,279	1,963	2,476	36.0	95,656	88,144	82,283	90,000
Yugoslavia	4,900	....	....	....	15.7	77,000	.....	.....	.....
Est. total§	70,020	69,410	69,000	71,240	...	1,345,000	1,455,000	1,505,000	1,530,000
U.S.S.R. (Europe & Asia)	....	95,000	103,000	107,000	...	.....	1,025,000	1,100,000	1,110 000
Asia:									
Iran	3,283	....	....	....	16.1	52,880	70,730	58,790	72,750
Iraq	1,737	927	1,236	1,606	8.5	14,697	11,020	18,370	20,210
Lebanon	166	173	176	161	9.5	1,572	2,100	1,990	1,840
Palestine	450	....	....	....	7.4	3,339	.....	.....	.....
Syria	1,216	1,819	2,300	....	13.5	16,357	24,130	29,000	25,720
Turkey	10,214	9,884	9,150	11,100	13.3	135,747	145,000	95,000	170,200
China	47,400	52,818	52,717	....	16.5	782,000	925,000	825,000	.....
Manchuria	1,955	....	....	....	11.7	22,923	.....	.....	.....
Indian Union**	24,227	20,353	21,885	23,627	10.5	253,600	201,190	204,288	228,107
Pakistan**	10,028	9,877	10,833	10,715	13.1	131,369	124,770	153,291	147,766
Japan	2,044	1,631	1,866	1,883	25.6	52,228	38,250	47,656	49,160
Korea	801	....	....	....	12.7	10,203	.....	.....	.....
Est. total§	105,830	107,260	109,660	116,470	...	1,500,000	1,600,000	1,475,000	1,630,000
Africa:									
Algeria	3,965	3,780	3,700	3,810	7.4	29,442	38,500	39,000	38,500
Egypt	1,893	1,573	1,471	1,424	26.0	43,973	41,500	45,000	41,000
Fr. Morocco	3,555	2,599	2,700	2,900	7.2	25,447	26,000	24,500	25,000
Tunisia	1,747	2,170	2,095	1,720	6.0	10,509	11,000	20,100	17,270
Union of South Africa††	2,514	2,400	2,694	...	6.2	15,597	17,540	14,340	.....
Est. total§	14,710	14,440	14,800	13,880	...	134,000	150,000	157,000	150,000
So. America:									
Argentina	13,776	12,000	12,500	14,500	17.0	234,585	190,000	210,000	230,000
Brazil	677	900	....	....	10.2	6,935	13,000	.....	.....
Chile	1,908	2,143	2,059	1,983	16.7	31,873	40,910	30,530	33,880
Peru	287	300	350	....	12.2	3,504	3,670	4,500	.....
Uruguay	945	1,280	1,237	1,040	10.8	10,161	18,810	16,607	13,000
Est. total§	18,250	17,210	17,760	19,690	...	293,000	273,000	280,000	300,000
Oceania:									
Australia	10,053	12,583	12,311	11,910	11.3	113,455	190,703	218,106	190,000
New Zealand	241	147	130	....	34.0	8,199	5,960	4,700	.....
Total	10,294	12,730	12,441	12,050	...	121,654	196,663	222,806	195,000
Est. world total§	387,830	414,710	432,310	429,410	...	5,735,000	6,420,000	6,270,000	6,495,000

Prepared or estimated on the basis of official statistics of foreign governments, reports of U.S. Foreign Service officers, results of office research, or other information. Frewar estimates for countries having changed boundaries have been adjusted to conform to present boundaries. Years shown refer to years of harvest in the Northern Hemisphere. Harvests of Northern Hemisphere countries are combined with those of the Southern Hemisphere which immediately follow; thus, the crop harvested in the Northern Hemisphere in 1950 is combined with preliminary forecasts for the Southern Hemisphere harvests which began late in 1950 and end early in 1951. †Figures refer to harvested areas as far as possible. ‡Yield per acre calculated from acreage and production data shown, except for incomplete periods. §Revised estimates for Northern Hemisphere countries, for Southern Hemisphere, preliminary forecasts based largely on acreage and weather conditions to date. ‖Estimated totals, which in the case of production are rounded to millions, include allowances for any missing data for countries shown and for other producing countries not shown. **Estimates for reporting area only. Allowances for non-reporting area not shown are included in estimated total for Asia. ††Production on European holdings only.

U.S. Winter Wheat Forecasts

Note: Estimated on date specified but not including revisions made after the year of harvest. In bushels, 000,000's omitted. Source: USDA

	April	May	June	July	Aug.	Dec.
1950.....	764	689	710	721	741	751
1949.....	1,020	1,021	1,037	932	895	902
1948.....	861	845	877	952	981	990
1947.....	973	1,026	1,093	1,092	1,096	1,068
1946.....	831	743	775	857	880	874
1945.....	863	835	797	834	837	823
1944.....	602	662	714	793	786	764
1943.....	559	515	502	519	534	530
1942.....	625	647	647	675	698	703
1941.....	616	653	698	682	684	671
1940.....	426	460	489	524	556	589
1939.....	549	544	523	538	551	563
1938.....	726	754	760	715	688	687
1937.....	656	654	649	664	688	685
1936.....	493	464	482	512	519	519
1935.....	435	432	441	458	432	465
1934.....	492	461	400	394	401	406
1933.....	324	337	341	326	340	351
1932.....	458	441	411	432	442	462
1931.....	644	653	649	713	775	787
1930.....	...	525	532	558	597	600
1929.....	...	595	622	532	568	578
1928.....	...	486	512	544	579	579
1927.....	...	594	587	579	552	553
1926.....	...	549	543	568	626	627
1925.....	474	445	407	404	416	402
1924.....	549	553	509	543	589	592
1923.....	572	578	581	586	568	572
1922.....	578	584	607	569	541	587
1921.....	621	629	578	572	543	560
1920.....	434	434	502	518	532	611

U.S. Spring Wheat Forecasts

Note: Estimates on date specified but not including revisions made after the year of harvest. In bushels, 000,000's omitted. Source: USDA

	June	July	Aug.	Sept.	Oct.	Dec.
1950.....	234	236	256	271	270	276
1949.....	300	257	237	234	231	246
1948.....	315	290	303	304	302	298
1947.....	317	343	332	313	312	299
1946.....	251	233	280	287	290	281
1945.....	287	295	309	315	313	306
1944.....	321	335	346	329	323	315
1943 ...	229	272	301	301	302	307
1942.....	221	229	257	284	286	278
1941.....	213	241	266	278	276	275
1940.....	...	205	205	228	236	228
1939.....	...	179	181	185	189	182
1938.....	...	252	268	252	252	244
1937.....	...	219	202	198	199	189
1936.....	...	126	114	111	108	107
1935.....	...	273	176	163	167	161
1934.....	...	89	90	93	97	91
1933.....	...	160	159	166	174	176
1932.....	...	306	281	273	270	264
1931.....	...	156	118	111	109	113
1930.....	...	250	223	240	242	257
1929.....	...	251	205	217	224	234
1928.....	...	257	313	322	325	328
1927.....	...	274	298	308	314	319
1926.....	...	200	213	213	213	205
1925.....	254	276	263	284	282	276
1924.....	184	197	225	247	266	272
1923.....	236	235	226	221	214	225
1922.....	247	247	263	276	268	281
1921.....	251	235	212	209	196	215
1920.....	276	271	261	237	218	232

U.S. Durum Wheat Crop

Note: Production in Minnesota, North and South Dakota and Montana. 000's omitted. Source: USDA

	Acres	Yield per acre, bu.	Production, bu.
1950*.....	2,729	13.2	36,064
1949*.....	3,525	11.0	38,817
1948*.....	3,187	14.0	44,680
1947*.....	2,948	15.0	43,983
1946*.....	2,453	14.6	35,836
1945*.....	2,004	16.4	32,840
1944*.....	2,057	14.4	29,666
1943*.....	2,078	16.1	33,505
1942*.....	2,109	19.6	41,236
1941*.....	2,524	16.1	40,658
1940*.....	3,029	10.7	32,294
1939*.....	2,965	11.0	32,486
1938*.....	3,484	11.4	39,715
1937*.....	2,785	10.0	27,957
1936*.....	1,543	5.3	8,113
1935.....	2,228	10.5	23,426

*Not including Montana.

U.S. Wheat Crop and Value

Note: By calendar years, 000's omitted. **Source: USDA**

	Acres	Crop—Bu. acre	Crop—Total bu.	Value bu.
Winter wheat				
1951	*56,103	16.0	899,096	$....
1950	43,816	17.1	750,666	†1.980
1949	55,129	16.2	895,101	1.860
1948	53,515	18.8	1,007,863	2.000
1947	54,835	19.5	1,068,048	2.240
1946	48,350	18.1	870,725	1.900
1945	46,989	17.4	817,834	1.500
1944	41,135	18.3	751,901	1.430
1943	34,562	15.6	537,476	1.390
1942	36,020	19.5	702,159	1.111
1941	39,778	16.9	673,727	.967
1940	36,095	16.4	592,809	.590
1939	37,681	15.0	565,672	.694
1938	49,567	13.8	685,178	.573
1937	47,075	14.6	688,574	.978
1936	37,944	13.8	523,603	1.020
1935	33,602	14.0	469,412	.827
1934	34,683	12.6	438,683	.844
1933	30,348	12.5	378,283	.777
1932	36,101	13.6	491,511	.391
1931	43,488	19.0	825,315	.381
1930	41,111	15.4	633,809	.693
1929	41,241	14.2	587,057	1.043
1928	36,853	15.7	579,066	1.030
1927	38,195	14.4	548,158	1.165
1926	37,597	16.8	631,607	1.209
1925	31,964	12.5	400,619	1.478
1924	35,418	16.2	573,563	1.316
1923	38,712	14.3	555,299	.945
1922	41,649	13.7	571,459	1.042
Spring wheat, including durum—				
1950	17,925	14.5	276,089	††1.990
1949	21,430	11.3	246,087	1.930
1948	19,502	15.6	305,671	1.980
1947	19,584	15.2	299,138	2.440
1946	18,725	15.1	282,321	1.950
1945	18,131	16.0	290,390	1.500
1944	18,624	16.5	308,210	1.379
1943	16,792	18.2	306,337	1.320
1942	13,753	19.4	267,222	1.065
1941	16,157	16.6	268,243	.913
1940	17,178	12.9	221,837	.662
1939	14,988	11.7	175,538	.686
1938	19,630	12.0	234,725	.527
1937	17,094	10.8	185,340	.904
1936	11,181	9.5	106,277	1.051
1935	17,703	9.0	158,815	.841
1934	8,664	10.1	87,369	.867
1933	19,076	9.1	173,932	.673
1932	21,750	12.2	264,796	.365
1931	14,216	8.2	116,225	.454
1930	21,526	11.7	252,713	.615
1929	22,151	10.7	237,126	1.019
1928	22,373	15.0	335,307	.897
1927	21,433	15.3	326,871	1.088
1926	19,019	10.5	200,606	1.202
1925	20,479	13.1	268,081	1.297
1924	17,045	15.7	268,064	1.290
1923	18,208	11.3	204,183	.832
1922	19,748	13.9	275,190	.882
All wheat—				
1950	61,741	16.6	1,026,755	††1.980
1949	76,559	14.9	1,141,188	1.880
1948	73,017	18.0	1,313,534	2.000
1947	74,389	18.4	1,367,186	2.290
1946	67,075	17.2	1,153,046	1.910
1945	65,120	17.0	1,108,224	1.500
1944	59,749	17.7	1,060,111	1.410
1943	51,355	16.4	843,813	1.360
1942	49,773	19.5	969,381	1.100
1941	55,935	16.8	941,970	.944
1940	53,273	15.3	814,646	.682
1939	52,669	14.1	741,210	.691
1938	69,197	13.3	919,913	.562
1937	64,169	13.6	873,914	.962
1936	49,125	12.8	629,880	1.025
1935	51,305	12.2	628,227	.831
1934	43,347	12.1	526,052	.848
1933	49,424	11.2	552,215	.744
1932	57,851	13.1	756,307	.382
1931	57,704	16.3	941,540	.391
1930	62,637	14.2	886,522	.671
1929	63,392	13.0	824,183	1.036
1928	59,226	15.4	914,373	.981
1927	59,628	14.7	875,059	1.117
1926	56,616	14.7	832,213	1.207
1925	52,443	12.8	668,700	1.406
1924	52,463	16.0	841,617	1.308
1923	56,920	13.3	759,482	.914
1922	61,397	13.8	846,649	.989

*Seeded acreage.
†Preliminary.

Certificate Final Terms

In grain sales transactions the expression "certificate final" means that the grain has been sold on the basis of grade and that the certificate of grade which accompanies the shipping document establishes the fact of its grade. Such transactions are final in that if the grade on the certificate is in accordance with the grade specified in the contract the buyer must accept the grain delivered without any recourse to arbitration for real or fancied grievances as to its commercial or industrial quality.

World Barley Production, Yield and Acreage

Note: 000's omitted **Source: USDA**

Continent and country	Acreage† Average 1940-44	1948	1949	1950†	Yield per acre‡ Ave. 1940-44	Production Ave. 1940-44	1948	1949	1950†
No. America:									
Canada	6,461	6,495	6,017	6,625	27.4	176,850	155,018	120,498	179,050
Mexico	391	499	495	505	13.2	5,171	6,843	6,890	7,100
U. S.	14,392	11,987	9,857	11,191	23.7	340,464	315,894	256,737	301,099
Est. total§	21,250	18,980	16,369	18,321	...	522,000	478,000	384,000	487,000
Austria	283	285	311	230	30.1	11,520	7,800	9,650	9,000
Belgium	137	210	194	200	47.6	6,525	11,000	11,340	10,500
Bulgaria	544	....	....	....	18.8	10,200	.....	.....	.....
Czechoslovakia	1,560	1,450	1,425	....	30.8	48,000	42,500	50,000	.....
Denmark	984	1,090	1,121	1,281	56.0	55,084	67,011	72,155	73,500
Finland	294	345	330	335	21.7	6,373	10,000	9,000	8,500
France	1,790	2,027	2,214	2,365	23.5	42,000	58,474	65,725	72,000
West Germany	....	1,140	1,225	1,500	...	.....	40,000	55,500	76,000
Greece	490	525	479	510	13.6	6,640	10,375	8,390	10,196
Hungary	1,235	....	....	....	24.3	30,000	.....	.....	.....
Ireland	172	120	157	175	43.1	7,417	6,500	8,200	7,350
Italy	575	620	618	611	17.7	10,200	11,000	10,410	12,975
Netherlands	109	132	121	177	51.8	5,642	6,500	8,700	11,200
Norway	126	91	99	109	34.1	4,299	4,096	3,955	4,850
Portugal	....	222	336	353	...	.....	3,794	4,340	6,050
Rumania	1,620	....	....	....	15.3	24,800	.....	.....	.....
Spain	4,075	3,850	3,850	3,950	18.4	75,000	75,000	79,000	75,000
Sweden	260	217	213	232	34.4	8,956	8,859	8,175	9,510
Switzerland	53	62	60	61	40.3	2,136	2,449	2,972	2,660
U. K.	1,620	2,053	2,060	1,785	40.9	66,183	94,593	96,087	76,390
Yugoslavia	1,000	....	....	....	16.6	16,600	.....	.....	.....
Est. total§	22,490	22,100	22,720	23,360	...	610,000	622,000	630,000	695,000
USSR (Europe and Asia)	....	21,500	21,500	21,500	...	.....	315,000	310,000	325,000
Iran	1,567	1,700	1,762	1,829	21.5	33,735	39,040	30,000	36,740
Iraq	2,620	1,544	1,853	2,471	10.3	27,100	26,150	35,000	35,000
Lebanon	88	54	50	44	14.0	1,234	1,222	1,040	920
Palestine	416	....	....	....	8.6	3,579	.....	.....	.....
Syria	651	844	....	....	17.8	11,589	11,000	10,000	11,000
Turkey	4,822	4,468	3,700	4,722	17.6	85,017	90,000	55,000	107,000
China	14,200	15,505	15,200	....	21.7	308,200	341,175	305,000	.....
Manchuria	237	....	....	....	22.4	5,300	.....	.....	.....
Indian Un.**	5,918	7,509	7,688	7,641	15.3	90,552	121,820	105,780	107,000
Pakistan**	546	478	611	563	13.9	7,588	6,253	8,350	7,200
Japan	2,097	2,169	2,466	2,515	31.1	65,283	64,072	82,150	81,630
Korea	2,620	....	....	....	20.6	54,000	.....	.....	.....
Est. total§	37,080	38,190	37,890	39,620	...	715,000	760,000	690,000	750,000
Algeria	2,714	3,500	2,734	2,664	8.8	23,836	41,000	45,000	38,000
Egypt	331	240	185	130	35.2	11,662	8,100	6,700	4,500
Fr. Morocco	5,130	3,490	4,525	4,950	9.8	50,189	65,700	62,800	55,000
Tunisia	1,180	1,329	1,530	934	4.8	5,695	4,593	17,868	11,020
Un. of S. Africa	129	80	....	....	15.1	1,946	1,412	.....	.....
Est. total§	10,760	9,290	10,480	10,170	...	107,000	135,000	150,000	126,000
Argentina	1,099	1,700	1,500	1,700	22.8	24,805	28,000	27,500	.....
Chile	122	136	112	....	28.3	3,453	4,307	3,679	.....
Uruguay	54	75	80	....	12.8	693	1,194	1,000	.....
Est. total§	1,910	2,630	2,460	2,650	...	39,000	45,000	44,000	46,000
Australia	610	1,012	1,000	1,050	18.7	9,590	18,526	20,000	.....
New Zealand	32	59	60	....	36.7	1,175	2,350	2,500	.....
Total	642	1,071	1,060	1,110	...	10,765	20,876	22,500	22,300
Est. world total§	115,000	113,810	112,500	116,770	...	2,325,000	2,360,000	2,250,000	2,450,000

Prepared or estimated on the basis of official statistics of foreign governments, reports of U.S. Foreign Service officers, results of office research, or other information. Prewar estimates for countries having changed boundaries have been adjusted to conform to present boundaries. Years shown refer to years of harvest in the Northern Hemisphere. Harvests of Northern Hemisphere countries are combined with those of the Southern Hemisphere which immediately follow: thus, the crop harvested in the Northern Hemisphere in 1950 is combined with preliminary forecasts for the Southern Hemisphere harvests which began late in 1950 and end early in 1951. †Figures refer to harvested areas as far as possible. ‡Yield per acre calculated from acreage and production data shown, except for incomplete periods. ††Preliminary estimates for Northern Hemisphere countries; for Southern Hemisphere, preliminary forecasts based largely on acreage and weather conditions to date. §Estimated totals, which in the case of production, are rounded to millions, include allowances for any missing data for countries shown and for other producing countries not shown. **Estimates for reporting areas only. Allowances for non-reporting areas, not shown, are included in estimated totals for Asia.

U.S. Buckwheat Production and Acreage by States

Note: By calendar years, 000's omitted. **Source: USDA**

State—	Acreage, harvested Average 1939-48	1949	1950	Yield per acre, bu. Average 1939-48	1949	1950	Production, bu. Average 1939-48	1949	1950
Maine	7	8	6	17.0	21.0	22.0	114	168	132
New York	124	68	67	17.2	20.0	19.0	2,137	1,360	1,273
Pennsylvania	119	92	81	19.1	20.5	20.0	2,262	1,886	1,620
Ohio	18	11	14	18.0	22.5	19.0	310	248	266
Indiana	10	7	6	14.0	14.5	13.5	136	102	81
Illinois	7	2	2	15.2	16.0	18.0	97	32	36
Michigan	30	19	17	14.8	14.5	15.5	444	276	264
Wisconsin	17	15	13	15.0	15.5	17.0	261	232	221
Minnesota	36	23	23	13.6	14.0	10.5	486	322	242
North Dakota	4	4	4	13.7	12.0	15.0	60	48	60
South Dakota	3	3	4	12.7	8.0	9.0	44	24	36
Maryland	5	4	4	20.2	19.0	19.0	103	76	76
Virginia	7	6	6	16.2	17.5	18.5	119	105	111
West Virginia	10	6	5	18.7	19.0	20.0	189	114	100
Tennessee	6	12	14	14.7	17.5	16.5	91	210	231
United States	414	280	266	17.0	18.6	17.9	7,029	5,202	4,749

World Oats Production, Yield and Acreage

Note: 000's omitted **Source: USDA**

Continent and country	Acreage† Average 1940-44	Acreage† 1948	Acreage† 1949	Acreage† 1950¶	Yield per acre† ave. 1940-44 bu.	Production† Ave. 1940-44	Production† 1948	Production† 1949	Production† 1950¶
	1,000 acres					1,000 bu.			
N. America:									
Canada‡	13,614	11,200	11,389	11,575	34.1	463,944	358,867	317,916	414,601
Mexico	87	81	150	175	19.5	1,699	1,226	3,000	3 450
U. S.	38,075	40,198	40,440	42,027	31.8	1,212,146	1,493,304	1,329,473	1,465,134
Est. total**	51,780	51,480	51,979	53,777	...	1,678,000	1,853,000	1,650,000	1,883,000
Europe:									
Austria	567	555	545	544	37.0	21,000	19,000	22,000	19,500
Belgium	390	515	480	450	70.2	27,367	36,500	40,440	35,000
Czechoslovakia	1,680	1,511	1,421	....	45.1	75,800	62,500	69,000	.....
Denmark	843	815	761	687	76.1	64,112	68,067	67,654	58,560
Finland	926	1,050	1,075	1,125	34.6	32,027	46,000	50,000	48,000
France	6,300	6,026	6,019	5,777	35.7	225,000	232,860	222,182	222,000
Germany, W.	....	2,750	2,800	2,830	...	.....	136,500	179,000	174,000
Greece	349	355	316	363	20.1	7,025	7,468	6,000	9,780
Ireland	844	880	725	725	63.2	52,535	55,447	40,000	45,880
Italy	1,090	1,175	1,158	1,171	31.6	34,400	36,000	28,570	37,200
Luxembourg	54	52	51	57	47.6	2,572	2,053	2,500	2,350
Netherlands	291	350	333	334	62.8	18,287	21,761	29,200	25,150
Norway	226	182	187	193	49.1	11,094	12,189	11,250	12,570
Portugal	....	727	800	851	...	.....	6,852	6,950	8,715
Spain	1,800	1,575	1,600	1,600	21.1	38,000	36,200	34,500	36,200
Sweden	1,476	1,210	1,240	1,243	39.4	58,136	54,600	57,870	59,940
Switzerland	83	82	77	80	66.3	5,505	4,399	6,025	4,685
U. K.	3,764	3,335	3,252	3,129	58.4	219,926	207,410	209,650	192,430
Est. total**	34,320	32,020	31,990	31,650	...	1,465,000	1,355,000	1,405,000	1,370,000
U.S.S.R. (Europe & Asia)	....	36,500	37,000	37,000	...	.....	780,000	775,000	750,000
Turkey	871	690	560	765	21.6	18,779	21,000	12,000	22,350
China	....	2,309	2,322	....	...	.....	54,802	50,000	.....
Japan	324	195	188	210	30.4	9,838	6,200	5,994	7,578
Est. total**	4,650	3,940	3,860	4,080	...	104,000	96,000	82,000	97,000
Algeria	544	412	452	457	19.2	10,470	10,500	11,400	9,893
Fr. Morocco	91	107	114	119	25.7	2,339	3,593	3,321	3,060
Tunisia	79	60	74	74	17.6	1,390	550	1,722	2,067
Un. of S. Africa	....	600	....	.....	...	7,338	6,722	8,000	.....
Est. total**	1,440	1,200	1,360	(1,320	...	22,000	22,000	25,000	24,000
Argentina	1,855	1,700	1,650	1,400	26.7	49,507	48,000	45,000	.....
Chile	218	230	225	220	27.1	5,900	5,872	4,500	.....
Uruguay	224	180	258	....	12.5	2,790	2,376	4,324	.....
Est. total**	2,320	2,150	2,170	1,890	...	59,000	58,000	54,000	47,000
Australia	1,626	1,770	1,850	1,750	12.4	20,179	29,502	32,000	.....
New Zealand	63	78	63	....	61.2	3,853	4,648	3,250	.....
Total	1,689	1,848	1,913	1,815	...	24,032	34,150	35,250	31,500
World total**	140,600	129,140	130,390	132,280	...	4,305,000	4,200,000	4,020,000	4,220,000

Prepared or estimated on the basis of official statistics of foreign governments, reports of U.S. Foreign Service officers, results of office research or other information. Prewar estimates for countries having changed boundaries have been adjusted to conform to present boundaries. Years shown refer to years of harvest in the Northern Hemisphere. Harvests of Northern Hemisphere countries are combined with those of the Southern Hemisphere which immediately follow; thus, the crop harvested in the Northern Hemisphere in 1950 is combined with preliminary forecasts for the Southern Hemisphere harvests which began late in 1950 and end early in 1951. †Figures refer to harvested areas as far as possible. ‡Yield per acre calculated from acreage and production data shown, except for incomplete periods. ¶Preliminary estimates for Northern Hemisphere countries; for Southern Hemisphere, preliminary forecasts based largely on acreage and weather condition to date. §Production and yield reported in bushels of 34 lb. **Estimated totals, which in the case of production are rounded to millions, include allowances for any missing data for countries shown and for other producing countries not shown.

U.S. Soybean Production and Acreage by States

Note: Acreage and Output, 000's omitted **Source: USDA**

State—	Acreage, harvested* Average 1939-48	Acreage, harvested* 1949	Acreage, harvested* 1950	Yield per acre, bu. Average 1939-48	Yield per acre, bu. 1949	Yield per acre, bu. 1950	Production, bu. Average 1939-48	Production, bu. 1949	Production, bu. 1950
New York	10	5	6	14.8	18.0	18.0	156	90	108
New Jersey	10	12	14	15.5	16.5	19.0	160	198	266
Pennsylvania	23	16	17	15.2	17.0	17.0	349	272	289
Ohio	906	858	1,056	19.3	24.0	22.0	17,547	20,592	23,232
Indiana	1,228	1,442	1,591	18.4	24.0	22.0	22,958	34,608	35,002
Illinois	3,044	3,287	3,948	21.2	26.0	24.0	64,513	85,462	94,752
Michigan	94	66	117	16.4	23.0	19.5	1,525	1,518	2,282
Wisconsin	35	15	24	14.2	16.5	14.5	490	248	348
Minnesota	377	709	1,057	15.4	18.0	15.5	5,995	12,762	16,384
Iowa	1,471	1,340	1,921	19.6	23.0	22.0	28,766	30,820	42,262
Missouri	507	857	1,191	15.0	21.0	23.0	8,046	17,997	27,393
North Dakota	16	20	41	†11.0	12.0	10.5	164	240	430
South Dakota	†18	29	66	†14.1	13.0	12.5	†248	377	825
Nebraska	25	22	46	15.6	22.0	24.0	389	484	1,104
Kansas	155	237	359	11.1	14.5	18.0	1,715	3,436	6,462
Delaware	34	44	46	12.5	15.0	14.0	432	660	644
Maryland	30	34	41	13.4	16.0	16.0	405	544	656
Virginia	76	117	133	14.8	18.0	19.0	1,128	2,106	2,527
West Virginia	1	1	1	12.9	13.0	13.5	14	13	14
North Carolina	222	264	301	12.0	16.0	17.0	2,675	4,224	5,117
South Carolina	14	25	44	7.9	11.0	12.0	113	275	528
Georgia	12	14	24	6.8	8.0	8.5	80	112	204
Kentucky	69	119	108	15.2	18.5	17.5	1,102	2,202	1,890
Tennessee	44	125	150	13.5	20.0	21.0	642	2,500	3,150
Alabama	28	61	90	11.5	17.0	18.0	371	1,037	1,620
Mississippi	90	198	282	12.8	16.5	24.0	1,212	1,782	6,768
Arkansas	199	291	556	14.6	20.0	21.0	2,980	5,820	11,676
Louisiana	28	25	40	12.8	15.0	18.0	362	375	720
Oklahoma	6	13	21	7.4	11.0	17.0	46	143	357
United States	8,764	10,156	13,291	18.8	22.7	21.6	164,491	230,897	287,010

*Equivalent solid acreage. (Acreage grown alone, with an allowance for acreage grown with other crops.) †Short-time average.

U.S. Crop Report Dates

Following are the release dates for crop and livestock reports for 1951 issued by the U.S. Department of Agriculture. All reports released at Washington at 3 p.m. e.s.t. unless otherwise noted.

Jan. 10—Stocks of corn for grain Jan. 1. Stocks of grain on farms Jan. 1. Flaxseed acreage. Poultry and egg production. Layers on farms.
Jan. 11—Sheep and lambs on feed for market Jan. 1.
Jan. 15—Hatchery production.
Jan. 18—Cattle on feed for market Jan. 1.
Jan. 22—Turkey production indicated by reported intention Jan. 1.
Jan. 25—Grain stocks in all positions.
Jan. 29—Soybean and flaxseed stocks in all positions.
Feb. 2—Production of meat scraps and tankage.
Feb. 9—Grain fed per milk cow. Poultry and egg production. Layers on farms.
Feb. 15—Number and value of livestock including poultry on farms Jan. 1. Number and value of chickens and turkeys on farms Jan. 1. Hatchery production.
Feb. 27—Monthly egg production for 1949, 1950.
March 8—Early lamb crop as of March 1 (10 states).
March 9—Poultry and egg production.
March 13—Young chickens and potential layers on farms in 1949, 1950.
March 15—Hatchery production. Hatchery production, monthly revisions for 1950.
March 19—Prospective plantings for 1951.
March 26—Farm production and income from turkeys, 1950.
April 10—Indicated production winter wheat. Indicated percentage abandonment winter wheat seedings. Condition of rye. Stocks of grain April 1. Amount of grain fed per milk cow. Poultry and egg production. Number of chicks and young chicks of current year's hatchings on hand.
April 11—Development of early lamb crop April 1.
April 16—Hatchery production.
April 18—Cattle on feed for market (corn belt states) April 1.
April 25—Grain stocks in all positions.
April 30—Soybean and flaxseed stocks in all positions.
May 3—Meat scraps and tankage production.
May 10—Acreage remaining for harvest May 1. Yield per acre and indicated production winter wheat and rye. Percentage of abandonment of winter wheat seedings. Condition of oats. Poultry and egg production. Number of chicks and young chicks of current year's hatchings on hand.
May 11—Development of early lamb crop May 1.
May 15—Hatchery production.
June 11—Indicated yield of crops per acre. Indicated production of grains. Grain fed per milk cow. Poultry and egg production. Number of chicks and young chicks of current year's hatchings on hand.
June 15—Hatchery production.
June 21—Spring pig crop and fall farrowings indicated by breeding intentions as of June 1.
July 10—Stocks of grain July 1. Planted acreage and indicated production winter and spring wheat, corn, oats, barley, flaxseed, sorghums. Acreage for harvest, indicated yield July 1. Poultry and egg production. Number of chicks and young chicks of current year's hatchings on hand.
July 16—Hatchery production.
July 18—Cattle on feed for market (corn belt states) July 1.
July 25—Grain stocks in all positions.
July 27—Chickens raised on farms, preliminary estimates 1951.
July 30—Soybean and flaxseed stocks in all positions.
July 31—U.S. lamb crop 1950.
Aug. 3—Meat scrap, tankage production.
Aug. 10—Indicated yield per acre Aug. 1 and indicated production. Grain fed per milk cow. Poultry and egg production. Layers on farms.
Aug. 15—Hatchery production.
Aug. 21—Turkey production, numbers raised indicated by numbers on hand Aug. 1.
Sept. 11—Indicated yield per acre Sept. 1, and indicated production. Condition of pasture. Poultry and egg production. Layers on farms.
Sept. 17—Hatchery production.
Oct. 10—Indicated yield per acre and indicated production. Stocks of corn for grain, and wheat, oats, barley, rye and soybeans on farms. Grain fed per milk cow. Poultry and egg production. Layers on farms.

Composition of farm flocks Oct. 1. Cattle feeding situation Oct. 1.
Oct. 11—Lamb feeding situation Oct. 1.
Oct. 15—Hatchery production.
Oct. 25—Grain stocks in all positions.
Oct. 29—Soybean and flaxseed stocks in all positions.
Nov. 2—Meat scraps, tankage production.
Nov. 9—Indicated crop yield per acre and indicated production. Condition of pasture. Poultry and egg production. Layers on farms.
Nov. 14—Cattle feeding situation Nov. 1.
Nov. 15—Lamb feeding situation Nov. 1.
Nov. 16—Hatchery production.
Dec. 11—Grain fed per milk cow. Poultry and egg production. Layers on farms. Cattle feeding situation Dec. 1.
Dec. 12—Lamb feeding situation Dec. 1.
Dec. 14—Hatchery production.
Dec. 17—Annual summary of acreage, yield per acre and production of all crops.
Dec. 19—Season average prices and value of production of principal crops. Seeded acreage and indicated production winter wheat and acreage and condition of rye for harvest in 1952.
Dec. 20—Fall pig crop 1951, and spring farrowings in 1952 indicated by breeding intentions.

Wheat in Canadian Provinces

Note: By crop years in bushels and acres. Source: Dominion Bureau of Statistics.

MANITOBA

Year—	Acreage, acres	Crop, bus	Yield per acre, bus
1950*	2,382,000	50,000,000	21.0
1949	3,167,000	57,000,000	18.0
1948	2,397,000	57,000,000	23.8
1947	2,497,000	42,000,000	16.8
1946	2,522,000	58,000,000	23.0
1945	2,132,000	38,800,000	18.2
1944	2,503,800	54,900,000	21.9
1943	1,640,000	41,000,000	25.0
1942	1,930,000	53,850,000	27.8
1941	2,442,000	51,000,000	20.9
1940	3,512,000	66,400,000	18.8
1939	3,201,000	63,800,000	19.6
1938	3,184,000	50,000,000	15.7
1937	2,872,000	48,000,000	16.7

*Preliminary.

SASKATCHEWAN

Year—	Acreage, acres	Crop, bus	Yield per acre, bus
1950*	16,203,000	260,000,000	16.0
1949	15,737,000	183,000,000	11.6
1948	14,389,000	191,000,000	13.3
1947	14,226,000	170,000,000	11.9
1946	14,085,000	208,900,000	14.8
1945	13,610,000	168,100,000	12.4
1944	13,200,000	250,000,000	18.9
1943	9,622,000	146,000,000	15.2
1942	12,353,000	304,400,000	24.6
1941	12,217,000	145,000,000	11.9
1940	15,571,000	266,700,000	17.1
1939	14,238,000	250,000,000	17.5
1938	13,793,000	137,800,000	9.9
1937	13,893,000	37,000,000	2.6

*Preliminary.

ALBERTA

Year—	Acreage, acres	Crop, bus	Yield per acre, bus
1950*	7,251,000	117,000,000	16.1
1949	7,586,000	97,000,000	12.8
1948	6,259,000	115,000,000	18.4
1947	6,534,000	103,000,000	15.8
1946	6,747,000	127,900,000	18.8
1945	6,824,000	87,700,000	12.9
1944	6,738,000	105,700,000	15.7
1943	4,829,000	80,000,000	16.6
1942	6,370,000	170,400,000	26.8
1941	6,481,000	97,000,000	15.0
1940	8,667,000	180,700,000	20.8
1939	8,379,000	150,000,000	17.9
1938	7,859,000	148,200,000	18.6
1937	7,384,000	74,000,000	10.0

*Preliminary.

TOTALS, THREE PROVINCES

Year—	Acreage, acres	Crop, bus	Yield per acre, bus
1950*	25,836,000	427,000,000	16.5
1949	26,490,000	337,000,000	12.7
1948	23,045,000	367,000,000	15.8
1947	23,357,000	315,000,000	13.5
1946	23,354,000	393,900,000	16.8
1945	22,566,000	294,600,000	13.1
1944	22,443,800	410,600,000	18.2
1943	16,091,000	267,800,000	16.6
1942	20,653,000	528,450,000	25.6
1941	21,140,000	293,000,000	13.9
1940	27,750,000	513,800,000	18.5
1939	25,813,000	463,000,000	17.9
1938	24,946,000	336,000,000	13.4
1937	24,599,000	159,000,000	6.4

*Preliminary.

World Corn Production, Yield and Acreage

Note: 000's omitted **Source: USDA**

Continent and country	Acreage† Average 1940-44	1948	1949	1950†	Yield per acre† ave. 1940-44 bu.	Production Ave. 1940-44	1948	1949	1950†
	1,000 acres					1,000 bu.			
N. America:									
Canada	273	252	272	306	39.7	10,833	12,417	13,650	13,128
Guatemala	1,060	...	...	...	15.8	16,760	.....	.....	.....
Honduras‖	310	...	...	...	13.4	4,262	.....	.....	.....
Mexico	8,416	9,196	9,840	9,840	9.6	80,714	111,487	90,546	118,104
Nicaragua‖	132	193	180	...	11.3	1,486	3,300	2,400	.....
U.S.	89,045	86,067	87,029	83,302	42.8	2,846,337	3,681,793	3,379,436	3,131,009
Cuba	276	550	...	...	16.2	4,250	8,929	.....	.....
Est. total**	101,030	99,310	100,824	97,091	...	2,985,000	3,860,000	3,537,000	3,318,000
Albania	240	...	...	...	19.7	4,837	.....	.....	.....
Austria	162	148	144	145	31.2	5,053	4,200	4,658	6,500
Bulgaria	1,980	...	...	...	14.7	29,204	.....	.....	.....
Czechoslovakia	245	373	380	...	27.3	6,695	12,052	12,500	.....
France	620	726	729	759	18.9	11,700	18,156	9,000	13,000
Germany	51	...	...	...	43.1	2,200	.....	.....	.....
Greece	529	577	562	614	16.5	8,743	8,992	9,448	7,480
Hungary	3,167	...	...	...	32.8	103,974	.....	.....	.....
Italy	3,436	3,250	3,250	3,260	28.1	96,400	102,000	106,300	95,000
Portugal	...	1,273	1,242	1,281	...	.....	14,146	10,000	14,700
Rumania	8,300	...	...	...	18.1	150,000	.....	.....	.....
Spain	1,950	904	890	925	23.8	25,000	24,000	21,400	23,600
Yugoslavia	6,790	...	...	...	23.4	159,000	.....	.....	.....
Est. total**	27,920	28,540	29,130	29,300	...	622,000	680,000	640,000	510,000
U.S.S.R. (Europe & Asia)	...	8,500	8,500	9,000	...	.....	135,000	140,000	150,000
Turkey	1,408	1,341	1,443	1,448	20.4	28,861	27,588	28,502	27,321
Burma	212	198	196	...	6.6	‖1,390	.....	.....	.....
China	14,200	12,276	12,300	...	19.9	282,600	260,151	255,220	.....
Manchuria	6,231	...	...	...	21.5	133,858	.....	.....	.....
Fr. Indochina	778	...	...	...	14.6	‖13,188	.....	.....	.....
Indian Union††	5,643	7,530	7,837	...	13.2	74,240	68,760	78,360	.....
Pakistan††	844	965	1,004	...	17.3	15,264	16,480	16,920	.....
Japan	162	148	140	...	22.8	3,700	2,913	.....	.....
Korea	375	...	...	...	12.0	4,500	.....	.....	.....
Java, Madura	5,160	...	...	...	15.9	82,200	.....	.....	.....
Philippine Isl.	2,442	2,042	2,140	...	9.8	23,967	20,432	24,340	.....
Est. total**	39,710	38,300	39,580	39,040	...	695,000	635,000	640,000	630,000
Belgian Congo	329	...	...	...	17.8	5,860	.....	.....	.....
Kenya‡‡	102	...	...	...	24.0	2,453	4,000	.....	.....
Basutoland	360	...	...	...	7.5	2,709	.....	.....	.....
Egypt	1,846	1,610	1,550	...	30.7	56,685	54,917	50,000	.....
French Mor.	1,251	1,351	1,343	1,253	7.9	9,863	13,287	15,743	6,000
Fr. W. Africa	1,500	...	...	...	13.3	20,000	.....	.....	.....
Madagascar	172	200	186	...	12.9	2,213	2,000	2,404	.....
Angola	1,470	...	...	...	8.3	12,180	.....	.....	.....
So. Rhodesia‡‡	243	215	...	...	21.1	5,116	4,464	.....	.....
Un. So. Africa	7,657	6,103	6,140	...	9.4	71,711	72,146	89,271	.....
Est. total**	19,280	18,210	18,020	18,520	...	240,000	250,000	265,000	255,000
Argentina	8,176	6,500	4,000	...	31.7	259,124	180,000	55,000	.....
Brazil	10,208	10,872	...	...	20.3	207,438	217,000	.....	.....
Chile	126	115	114	...	20.7	2,603	2,552	3,097	.....
Colombia	1,440	...	...	...	16.0	22,969	24,999	25,000	.....
Uruguay	420	350	345	...	10.9	4,573	3,653	2,725	.....
Est. total**	22,640	22,160	19,080	20,160	...	530,000	475,000	355,000	430,000
Australia	298	182	225	...	25.1	7,482	5,199	6,000	.....
New Zealand	8	7	7	...	51.8	414	357	350	.....
Est. total**	310	195	240	260	...	8,000	5,700	6,500	6,500
Est. world total**	218,290	215,210	215,080	213,160	...	5,180,000	6,040,000	5,580,000	5,285,000

Prepared or estimated on the basis of official statistics of foreign governments, reports of U.S. Foreign Service officers, results of office research or other information. Prewar estimates for countries having changed boundaries have been adjusted to conform to present boundaries. Years shown refer to years of harvest in the Northern Hemisphere. Harvests of Northern Hemisphere countries are combined with those of the Southern Hemisphere which follow: thus, the crop harvested in the Northern Hemisphere in 1950 is combined with preliminary forecasts for the Southern Hemisphere harvest which will begin early in 1951. †Figures refer to harvested area as far as possible. ‡Yield per acre calculated from acreage and production data shown, except for incomplete periods. §Preliminary estimates for Northern Hemisphere countries; for the Southern Hemisphere, preliminary forecasts. ‖Average of less than five years. **Estimated totals, which in the case of production are rounded to millions, include allowances for any missing data for countries shown and for other producing countries not shown. ††Estimates for reporting areas only, allowances for non-reporting area, not shown, are included in estimated total for Asia. ‡‡European holdings only. Allowances for native cultivation, not shown, are included in estimated total for Africa.

U.S. Average Rainfall in the Wheat Belt

Note: January through October values are state averages for the period, record through 1950, values for November and December extend through 1949. **Source: U.S. Dept. of Commerce**

State	Yr. record began	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Minn.	1891	0.76	0.75	1.34	2.11	3.25	4.11	3.30	3.25	2.84	1.85	1.19	0.76	25.41
N. D.	1892	.49	.47	.79	1.42	2.28	3.50	2.46	2.05	1.54	1.03	.61	.48	17.11
S. D.	1890	.56	.55	1.12	2.04	2.84	3.53	2.41	2.10	1.56	1.21	.65	.51	19.08
Mont.	1895	.92	.76	.98	1.12	2.08	2.62	1.39	1.09	1.37	1.07	1.02	.95	15.38
Kansas	1887	.72	.89	1.50	2.65	3.82	4.09	3.25	3.19	2.78	1.96	1.27	.90	27.13
Okla.	1892	1.94	1.51	2.17	3.48	4.85	3.99	2.88	2.92	3.15	2.92	2.02	1.71	33.54
Texas	1888	2.00	1.86	2.09	2.98	3.77	3.12	2.66	2.45	2.93	2.60	2.26	2.28	31.00
Neb.	1876	.55	.69	1.13	2.36	3.41	3.75	3.08	2.68	2.08	1.45	.77	.67	22.62
Colo.	1888	.81	.96	1.32	1.78	1.89	1.46	2.13	1.93	1.34	1.18	.78	.88	16.46
Iowa	1873	1.12	1.08	1.78	2.74	4.07	4.79	3.65	3.55	3.72	2.33	1.61	1.19	31.64
Ill.	1890	2.42	1.96	3.19	3.59	4.10	3.98	3.24	3.37	3.63	2.65	2.62	2.15	36.90
Mo.	1888	2.42	2.10	3.25	3.99	4.82	4.83	3.57	3.82	3.99	2.97	2.69	2.22	40.67
Ohio	1883	2.92	2.39	3.45	3.24	3.76	3.97	3.50	3.36	2.94	2.51	2.69	2.89	37.72
Ind.	1887	3.15	2.47	3.75	3.62	4.08	3.99	3.24	3.33	3.31	2.75	3.05	2.74	39.59

U.S. Rye Production and Acreage by States

Note: By calendar years, 000's omitted. **Source: USDA**

State—	Acreage, harvested— Average 1939-48	1949	1950	Yield per acre, bu.— Average 1939-48	1949	1950	Production, bu.— Average 1939-48	1949	1950
New York	16	13	15	17.5	19.0	20.0	277	242	300
New Jersey	15	13	14	16.9	17.5	17.5	255	228	245
Pennsylvania	43	33	33	14.7	15.5	15.5	613	502	502
Ohio	52	15	35	16.9	18.0	19.0	872	270	665
Indiana	95	54	59	13.5	14.0	14.0	1,292	756	826
Illinois	56	56	62	12.8	15.0	14.0	724	840	868
Michigan	69	60	65	14.1	15.5	16.0	968	930	1,040
Wisconsin	124	92	92	11.2	13.0	12.5	1,397	1,196	1,150
Minnesota	220	170	162	13.5	15.0	14.5	3,002	2,550	2,349
Iowa	22	17	14	15.0	14.0	16.0	335	238	224
Missouri	41	35	36	12.4	14.0	13.0	496	490	468
North Dakota	437	229	234	11.5	12.0	12.0	5,777	2,748	2,808
South Dakota	482	247	420	11.8	10.0	12.5	5,677	2,470	5,250
Nebraska	351	189	210	10.7	8.5	11.5	3,799	1,606	2,415
Kansas	79	26	42	10.8	10.5	10.5	846	273	441
Delaware	15	15	18	13.0	12.0	13.0	198	180	234
Maryland	19	19	18	14.3	14.0	14.0	268	266	252
Virginia	38	25	26	13.1	15.0	15.0	499	375	390
West Virginia	4	2	2	12.1	13.0	14.0	51	26	28
North Carolina	26	19	18	11.0	10.5	11.5	289	200	207
South Carolina	18	9	9	9.4	9.5	10.0	165	86	90
Georgia	14	5	4	8.8	10.0	11.0	117	50	44
Kentucky	26	27	21	13.0	14.0	11.5	344	378	242
Tennessee	36	20	22	10.0	10.5	10.0	357	210	220
Oklahoma	84	33	45	9.3	9.0	7.5	781	297	338
Texas	21	38	28	9.2	8.0	7.0	191	304	196
Montana	35	18	20	12.1	9.0	12.5	420	162	250
Idaho	5	3	4	14.4	15.0	13.0	74	45	52
Wyoming	15	7	6	10.0	12.0	12.0	162	84	72
Colorado	72	23	23	9.7	12.5	8.5	736	288	238
New Mexico	8	4	4	9.9	13.0	6.0	84	52	24
Utah	8	8	6	10.1	9.0	9.0	78	72	54
Washington	21	12	20	12.0	10.0	11.5	253	120	230
Oregon	37	27	35	14.0	11.0	11.0	514	297	385
California	12	12	12	11.5	9.0	10.0	144	108	120
United States	2,674	1,560	1,822	12.0	12.0	12.6	32,155	18,739	22,977

U.S. Acreage Sown to Rye in Principal States

Note: Acreage sown in fall, 000's omitted **Source: USDA**

State—	Acreage seeded*— Crops of 1939-48	1949	1950	1951	Crop of '51 Ave. as % of crop of 1950	Condition Dec. 1 (%)— Ave. 1938-47 (crops of 1939-48)	1948 (crop of 1949)	1949 (crop of 1950)	1950 (crop of 1951)
New York	67	90	100	100	100	89	91	92	91
New Jersey	94	88	89	89	100	90	91	90	90
Pennsylvania	57	21	21	21	100	86	93	92	90
Ohio	104	67	96	75	78	87	93	91	89
Indiana	203	140	156	145	93	88	94	91	92
Illinois	124	123	135	140	104	89	95	92	92
Michigan	121	164	180	185	103	90	92	95	94
Wisconsin	167	119	132	145	110	91	89	91	90
Minnesota	271	200	186	253	120	86	88	90	89
Iowa	59	50	32	29	91	88	93	91	92
Missouri	123	117	125	126	93	82	91	87	82
North Dakota	606	263	279	223	80	75	84	86	85
South Dakota	674	309	513	621	121	79	82	89	90
Nebraska	611	303	339	305	90	79	84	90	89
Kansas	174	65	102	96	94	78	87	91	78
Delaware	28	29	32	34	106	90	90	91	90
Maryland	57	65	60	63	105	88	94	92	87
Virginia	132	146	136	143	105	84	92	91	89
West Virginia	11	6	6	6	100	85	92	91	88
North Carolina	171	116	106	106	100	84	90	87	88
South Carolina	68	39	32	34	106	75	85	77	74
Georgia	51	25	20	20	100	76	82	79	77
Kentucky	122	136	129	114	88	84	90	90	87
Tennessee	148	105	94	82	87	82	89	86	86
Oklahoma	229	93	140	161	115	71	60	85	67
Texas	48	100	100	112	112	72	56	79	47
Montana	57	30	32	37	116	86	74	84	92
Idaho	14	10	8	8	100	88	93	87	92
Wyoming	35	27	27	28	104	85	84	86	90
Colorado	125	38	51	66	130	80	70	89	83
New Mexico	12	6	6	5	83	†75	58	71	84
Utah	16	15	14	14	100	87	65	94	66
Washington	52	42	63	56	89	87	89	89	94
Oregon	138	135	140	140	100	91	96	77	97
California	28	29	29	30	103	84	74	92	98
United States	4,997	3,311	3,720	3,782	101.7	82	86	88	87

*Total acreage seeded for all purposes. †Short-time average.

U.S. Wheat Production by Various Classes

Note: 000's omitted **Source: USDA**

Year	Winter— Hard red	Soft red	Spring— Hard red	Durum	White— Winter	Spring	Total white	Total
1950....	471,079	165,931	207,304	36,795	31,990	113,656	145,646	1,026,755
1949....	570,232	214,418	176,599	39,267	30,221	110,451	140,672	1,141,188
1948....	637,765	257,613	226,306	45,478	112,485	33,887	146,372	1,313,534
1947....	739,320	236,843	219,722	44,985	91,885	34,431	126,316	1,367,186
1946....	579,896	195,711	214,535	36,337	95,119	31,149	126,267	1,153,946
1945....	620,843	213,350	220,849	33,285	83,641	36,256	119,897	1,108,224
1944....	469,589	222,912	244,067	32,789	66,429	36,391	102,820	1,072,177
1943....	356,638	133,297	231,518	36,544	41,546	41,480	83,026	841,023
1942....	476,488	159,821	214,906	45,491	60,159	17,329	77,470	974,176
1941....	394,996	209,398	207,463	42,660	66,316	22,295	88,610	943,127
1940....	329,797	206,266	158,720	34,304	52,740	30,385	83,125	813,231
1939....	309,300	206,413	120,674	35,088	54,038	25,937	79,965	751,435
1938....	389,224	236,071	157,202	42,266	62,838	44,101	106,939	931,702
1937....	373,371	257,838	101,393	28,929	54,615	59,530	114,145	875,676
1936....	259,775	207,410	50,742	8,836	52,689	47,314	100,002	626,766
1935....	203,232	204,256	107,875	24,759	57,831	28,291	86,122	626,344
1934....	207,860	183,602	53,279	6,891	41,501	28,260	69,761	516,393

U.S. Crops and Value

Note: By calendar years, 000's omitted. **Source: USDA**

	Acres	Crop— Bu. acre	Total bu.	Value bu.
Corn—				
1950....	83,302	37.6	3,131,009	†$1.450
1949....	87,029	38.8	3,379,436	1.240
1948....	86,067	42.8	3,681,793	1.300
1947....	83,933	28.4	2,383,970	2.160
1946....	88,489	36.7	3,249,950	1.560
1945....	88,079	32.7	2,880,933	1.270
1944....	94,014	32.8	3,088,110	1.090
1943....	92,060	32.2	2,965,980	1.120
1942....	87,367	35.1	3,068,562	.917
1941....	85,357	31.1	2,651,889	.751
1940....	86,429	28.4	2,457,146	.618
1939....	88,279	29.2	2,580,985	.568
1938....	92,160	27.7	2,548,753	.486
1937....	93,930	28.1	2,642,978	.518
1936....	93,154	16.2	1,505,689	1.044
1935....	95,974	24.0	2,299,363	.655
1934....	92,193	15.7	1,448,920	.815
1933....	105,918	22.6	2,397,593	.520
1932....	110,577	26.5	2,930,352	.316
1931....	106,866	24.1	2,576,927	.321
1930....	101,465	20.5	2,080,130	.598
1929....	97,805	25.7	2,515,879	.799
1928....	100,336	26.6	2,665,516	.840
1927....	98,357	26.6	2,616,120	.850
1926....	99,452	25.6	2,546,972	.745
1925....	101,331	27.6	2,798,367	.699
1924....	100,420	22.1	2,223,123	1.061
Oats—				
1950....	42,027	34.9	1,465,134	†$ .779
1949....	40,440	32.9	1,329,473	.660
1948....	40,198	37.1	1,493,304	.727
1947....	38,451	31.2	1,199,422	1.010
1946....	43,205	34.7	1,497,904	.810
1945....	41,933	36.6	1,535,676	.667
1944....	39,672	29.0	1,149,260	.709
1943....	38,914	29.3	1,139,831	.722
1942....	38,197	35.2	1,342,681	.488
1941....	38,161	31.0	1,182,509	.411
1940....	35,431	35.2	1,246,450	.303
1939....	33,460	28.6	957,704	.310
1938....	36,042	30.2	1,089,383	.238
1937....	35,542	33.1	1,176,744	.302
1936....	33,654	23.6	792,583	.449
1935....	40,109	30.2	1,210,229	.264
1934....	29,455	18.5	544,247	.481
1933....	36,528	20.2	736,309	.335
1932....	41,700	30.1	1,254,584	.157
1931....	40,193	28.0	1,124,232	.213
1930....	39,847	32.0	1,274,592	.322
1929....	38,153	29.2	1,112,949	.418
1928....	40,128	32.7	1,312,914	.407
1927....	40,350	27.1	1,093,221	.471
1926....	42,854	26.9	1,152,911	.400
1925....	44,240	31.8	1,405,268	.389
1924....	41,857	33.8	1,416,120	.478
Barley—				
1950....	11,191	26.9	301,009	†$1.130
1949....	9,857	24.0	236,737	1.040
1948....	11,987	26.4	315,894	1.150
1947....	11,014	25.5	281,185	1.730
1946....	10,411	25.2	262,258	1.360
1945....	10,465	25.5	266,833	1.020
1944....	12,301	22.4	276,112	1.010
1943....	14,900	21.7	322,913	.991
1942....	16,958	25.3	429,450	.632
1941....	14,276	25.4	362,568	.529
1940....	13,625	23.0	311,278	.397
1939....	12,739	21.8	278,193	.405
1938....	10,610	24.2	256,620	.368
1937....	9,969	22.3	221,899	.542
1936....	8,329	17.7	147,740	.782
1935....	12,436	23.2	288,667	.379
1934....	6,577	17.8	117,390	.686
1933....	9,661	15.9	152,839	.434
1932....	13,206	22.7	299,394	.221
1931....	11,181	17.9	200,280	.328
1930....	12,629	23.9	301,619	.405
1929....	13,564	20.7	280,637	.539
1928....	12,738	25.8	328,351	.568
1927....	9,465	25.3	239,071	.689
1926....	7,917	21.0	166,030	.679
1925....	8,186	23.5	192,468	.614
1924....	7,038	23.5	165,318	.742

†Preliminary.

Wheat Seedings by States

Note: In million acres. Source: USDA

Harvest year	N. Dakota	S. Dakota	Montana	Nebraska	Kansas	Oklahoma	Texas	Washington
1950....	8.9	3.5	5.3	4.1	12.8	6.0	6.0	2.7
1949....	11.0	4.4	5.9	4.7	16.2	7.6	7.5	3.2
1948....	10.1	4.0	5.2	4.5	14.6	7.3	6.8	3.0
1947....	10.4	3.9	5.2	4.5	15.4	7.1	7.6	2.9
1946....	10.4	3.8	4.4	4.0	14.0	6.7	6.8	2.8
1945....	10.0	3.4	4.1	3.8	14.1	6.3	5.8	2.7
1944....	10.2	3.3	4.4	3.7	13.1	5.2	4.4	2.5
1943....	8.6	3.2	4.0	3.1	10.7	3.8	3.6	2.5
1942....	7.5	2.7	3.4	3.1	10.7	3.8	3.6	1.7
1941....	8.4	3.1	3.8	3.1	11.1	3.8	3.4	2.0
1940....	8.4	2.9	3.4	3.7	14.0	4.8	4.7	2.3
1939....	8.2	3.0	3.8	4.0	13.9	4.9	3.9	1.9

U.S. Crops and Value

Note: By calendar years, 000's omitted. **Source: USDA**

	Acres	Crop Bu. acre	Crop Total bu.	Value bu.
RYE—				
1951	*3,782	....	.....	$....
1950	1,822	12.6	22,977	†1.260
1949	1,560	12.0	18,739	1.220
1948	2,096	12.6	26,449	1.460
1947	2,010	12.9	25,975	2.270
1946	1,607	11.7	18,879	1.920
1945	1,856	12.9	23,952	1.350
1944	2,132	10.6	22,525	1.090
1943	2,652	10.8	28,680	.982
1942	3,792	14.0	52,929	.603
1941	3,573	12.3	43,878	.542
1940	3,204	12.4	39,725	.420
1939	3,822	10.1	38,562	.439
1938	4,087	13.7	56,984	.338
1937	3,825	12.6	48,562	.686
1936	2,694	9.0	24,239	.812
1935	4,066	14.0	56,938	.398
1934	1,921	8.5	16,285	.726
1933	2,405	8.6	20,573	.627
1932	3,350	11.7	39,099	.280
1931	3,159	10.4	32,777	.341
1930	3,646	12.4	45,383	.444
1929	3,138	11.3	35,411	.857
1928	3,310	11.5	37,910	.836
1927	3,458	14.8	51,076	.835
1926	3,419	10.2	34,860	.830
1925	3,800	11.1	42,316	.790
1924	3,941	14.8	58,445	.953
1923	4,936	11.3	55,961	.593
1922	6,757	14.9	100,986	.639
1921	4,851	12.6	61,023	.840
1920	4,825	12.8	61,915	1.464
Buckwheat—				
1950	266	17.9	4,749	†$1.090
1949	280	18.6	5,203	.962
1948	336	18.8	6,305	1.130
1947	518	14.2	7,334	1.900
1946	391	18.2	7,124	1.480
1945	409	16.2	6,644	1.190
1944	515	17.8	9,166	1.010
1943	505	17.5	8,830	1.260
1942	375	17.7	6,636	.846
1941	337	17.9	6,038	.674
1940	388	16.7	6,476	.538
1939	370	15.5	5,736	.622
1938	448	15.1	6,763	.539
1937	421	16.2	6,808	.667
1936	379	17.0	6,449	.851
1935	505	16.8	8,488	.548
1934	475	18.9	8,994	.585
1933	460	17.0	7,816	.558
1932	474	14.8	6,727	.434
1931	507	17.6	8,910	.423
1930	574	12.1	6,967	.788
1929	629	13.8	8,710	.962
1928	679	14.9	10,117	.899
1927	764	16.8	12,820	.869
1926	679	16.2	10,976	.871
1925	742	16.9	12,559	.872
1924	737	17.0	12,508	1.074
1923	689	16.8	11,596	.958
1922	729	16.2	11,776	.895
1921	640	18.5	11,822	.879
1920	729	16.7	12,193	1.264
Flaxseed—				
1950	3,893	10.1	39,263	†$3.230
1949	4,924	8.9	43,946	3.630
1948	4,859	11.2	54,529	5.710
1947	4,030	10.1	40,536	6.150
1946	2,432	9.3	22,585	4.040
1945	3,785	9.1	34,557	2.890
1944	2,610	8.3	21,665	2.910
1943	5,691	8.8	50,009	2.830
1942	4,408	9.3	40,976	2.360
1941	3,266	9.8	32,133	1.790
1940	3,182	9.7	30,824	1.416
1939	2,171	9.0	19,606	1.468
1938	905	8.9	8,032	1.592
1937	927	7.6	7,070	1.866
1936	1,125	4.7	5,331	1.897
1935	2,126	7.0	14,914	1.420
1934	1,002	5.7	5,719	1.700
1933	1,241	5.1	6,304	1.630
1932	1,988	5.8	11,511	.880
1931	2,431	4.8	11,755	1.170
1930	3,780	5.7	21,673	1.610
1929	3,049	5.2	15,924	2.810
1928	2,611	7.3	19,118	1.938
1927	2,763	9.1	25,174	1.925
1926	2,736	6.8	18,531	2.232
1925	3,022	7.4	22,334	2.264
1924	3,535	8.8	31,220	2.179
1923	2,015	8.2	16,563	2.125
1922	1,113	9.5	10,520	2.076
1921	1,143	7.1	8,107	1.654
1920	1,647	6.6	10,900	2.328

†Preliminary.
*Seeded acreage.

Kernels in Bushel

Calculations made by the North Dakota state seed department on hard red spring wheat indicate the number of kernels in a measured bushel to be as follows: 1,000,000 in 60-lb wheat, 1,300,000 in 55-lb wheat, 1,500,000 in 50-lb wheat, 1,700,000 in 45-lb wheat, 1,800,000 in 40-lb. wheat.

U.S. Oats Production, Yield & Acreage by States

Note: By calendar years, 000's omitted **Source: USDA**

State—	Acreage, harvested— Average 1939-48	1949	1950	Yield per acre, bu.— Average 1939-48	1949	1950	Production, bu.— Average 1939-48	1949	1950
Maine	95	95	98	38.6	42.0	40.0	3,274	3,990	4,302
New Hampshire	7	6	5	36.5	37.0	42.0	243	185	210
Vermont	46	38	37	33.7	31.0	35.0	1,500	1,178	1,295
Massachusetts	6	8	7	31.7	31.0	33.0	201	248	231
Rhode Island	1	1	1	31.6	30.0	33.0	32	30	33
Connecticut	5	6	5	33.9	37.0	38.0	176	222	190
New York	730	779	787	32.0	29.0	43.0	23,966	22,591	33,841
New Jersey	44	44	43	30.0	34.0	39.0	1,325	1,496	1,677
Pennsylvania	815	821	788	31.0	30.0	38.0	25,294	24,630	29,944
Ohio	1,101	1,334	1,147	37.6	36.0	36.0	42,204	48,024	41,292
Indiana	1,278	1,450	1,421	35.0	38.5	37.0	45,047	55,825	52,577
Illinois	3,428	3,834	3,911	39.7	43.0	42.5	136,758	164,862	166,218
Michigan	1,347	1,575	1,480	37.4	36.0	39.5	51,134	56,700	e58,460
Wisconsin	2,596	2,924	2,924	41.3	41.0	48.5	108,370	119,884	141,814
Minnesota	4,548	4,952	5,191	37.6	37.0	37.0	171,594	183,224	188,737
Iowa	5,277	6,269	6,457	35.8	39.0	41.0	189,957	244,491	264,737
Missouri	1,815	1,714	1,782	24.6	24.0	31.0	45,072	41,136	55,242
North Dakota	2,168	1,743	2,126	29.1	21.5	28.0	64,168	37,474	59,528
South Dakota	2,639	2,956	3,311	31.2	22.0	26.5	83,696	67,988	87,742
Nebraska	2,052	2,260	2,644	26.6	22.0	25.0	55,740	49,720	66 100
Kansas	1,466	881	960	23.7	21.5	22.0	35,197	18,942	21,120
Delaware	4	6	8	30.0	30.0	28.0	136	180	224
Maryland	39	48	55	30.5	33.0	34.0	1,174	1,584	1,870
Virginia	130	155	160	26.3	30.0	32.5	3,437	4,650	5,200
West Virginia	70	60	55	25.1	25.5	28.5	1,752	1,530	1,568
North Carolina	308	394	402	27.0	30.5	29.5	8,417	11,820	11,859
South Carolina	637	634	675	24.3	26.0	27.0	15,572	16,484	18,984
Georgia	591	591	597	22.7	25.0	27.0	13,502	14,775	16,119
Florida	24	18	16	16.5	16.0	18.0	427	288	288
Kentucky	91	128	118	22.5	26.0	24.0	2,078	3,328	2,832
Tennessee	178	254	239	24.6	25.0	25.0	4,504	6,350	5,975
Alabama	213	180	158	22.3	23.5	26.0	4 840	4,230	4,108
Mississippi	328	226	249	32.4	30.5	31.0	10,510	6,893	7,719
Arkansas	276	246	212	27.5	27.0	29.5	7,600	6,642	6,254
Louisiana	108	101	71	29.1	29.0	27.5	3,124	2,929	1,953
Oklahoma	1,305	873	838	19.8	20.0	17.5	25,958	17,460	14,665
Texas	1,388	1,260	1,386	21.8	27.0	19.5	31,195	34,020	27,027
Montana	387	279	444	32.3	29.0	36.0	12,612	8,091	15,984
Idaho	179	180	212	41.2	41.5	45.0	7,367	7,470	9,540
Wyoming	133	135	162	30.3	29.5	32.0	4,030	3,982	5,184
Colorado	187	223	190	30.8	33.5	26.0	5,798	4,470	4,940
New Mexico	41	41	33	21.7	23.0	23.0	897	943	759
Arizona	10	11	10	29.2	30.0	30.0	283	330	300
Utah	44	45	47	42.5	47.0	46.5	1,881	2,115	2,186
Nevada	8	9	8	40.3	40.0	45.0	312	360	360
Washington	165	145	167	45.5	47.0	49.0	7,487	6,815	8,183
Oregon	297	331	281	32.4	33.5	32.0	9,655	11,088	8,992
California	168	178	196	29.6	27.0	32.0	4,978	4,806	6,272
United States	38,762	40,440	42,027	32.8	32.9	34.9	1,274,474	1,329,473	1,465,134

U.S. Combined Wheat Production and Acreage

Note: By calendar years, 000's omitted **Source: USDA**

State—	Acreage, harvested— Average 1939-48	1949	1950	Yield per acre, bu.— Average 1939-48	1949	1950	Production, bu.— Average 1939-48	1949	1950
New York	315	421	425	24.8	27.9	28.9	7,856	11,760	12,585
New Jersey	80	83	78	22.6	24.0	21.5	1,355	1,992	1,677
Pennsylvania	886	918	872	20.4	23.0	22.0	18,158	21,114	19,184
Ohio	1,932	2,353	2,118	22.8	25.5	22.0	44,400	60,002	46,596
Indiana	1,403	1,740	1,479	19.8	22.5	21.5	28,258	39.150	31,798
Illinois	1,427	1,913	1,376	19.2	24.5	20.0	28,174	46,856	27,538
Michigan	900	1,297	1,141	23.6	27.0	26.0	21,654	35,019	29,666
Wisconsin	85	112	86	20.6	22.5	24.1	1,762	2,520	2,073
Minnesota	1,275	1,281	921	17.5	15.6	16.7	22,109	19,971	15,410
Iowa	215	382	262	19.8	18.9	21.8	4,368	7,213	5,740
Missouri	1,342	1,946	1,362	16.1	18.0	18.0	22,358	35,028	24,516
North Dakota	8,905	10.606	6,706	15.1	10.6	13.9	134,228	112,909	120,724
South Dakota	3,066	4,074	3,278	12.7	8.4	10.4	39,747	34,276	33,978
Nebraska	3,269	3,761	3,879	18.4	14.5	21.9	61,736	54,408	84,788
Kansas	11,666	14,279	12,280	16.0	11.5	14.5	188 577	164,208	178,060
Delaware	64	65	61	19.1	18.5	17.0	1,228	1,202	1,037
Maryland	350	362	329	19.4	19.0	18.5	6,817	6,878	6,086
Virginia	449	472	425	16.3	18.5	18.5	7,998	8,732	7,862
West Virginia	94	73	66	17.1	19.5	18.5	1,583	1,424	1,221
North Carolina	450	417	375	15.1	13.0	14.5	6,809	5,421	5,438
South Carolina	233	193	156	13.8	10.0	14.0	3,185	1,930	2,184
Georgia	195	190	152	12.3	12.0	12.5	2,419	2,280	1,900
Kentucky	348	301	260	15.0	17.5	15.0	5,260	5,268	3,900
Tennessee	345	300	270	13.7	14.5	12.5	4,729	4,350	3,375
Alabama	13	12	12	13.9	15.0	15.0	185	180	180
Mississippi	11	12	6	24.7	22.0	21.0	264	264	126
Arkansas	30	26	19	12.7	15.0	15.0	386	390	285
Oklahoma	5,080	6,825	4,846	13.8	13.0	9.0	71,156	88,725	43,614
Texas	4,463	6,924	2,839	12.4	14.5	8.0	56,350	100,398	22,712
Montana	3,914	5,140	4,862	17.2	12.5	19.3	67,048	64.080	93,958
Idaho	1,079	1,537	1,342	27.4	24.8	27.8	29,648	38,106	37,350
Wyoming	245	350	334	18.0	19.9	18.6	4,497	6,953	6,218
Colorado	1,631	2,884	2,362	18.9	17.2	16.9	32,247	49,551	39,924
New Mexico	337	452	149	11.5	12.3	6.4	3,955	5,540	955
Arizona	27	28	28	21.4	25.0	24.0	583	700	672
Utah	279	428	408	23.1	22.1	19.6	6,450	9,440	8,008
Nevada	18	25	17	27.3	30.8	27.7	492	769	471
Washington	2,296	2,707	2,547	26.3	21.2	26.5	60,302	57,511	67,582
Oregon	867	1,050	952	45.2	22.1	24.9	21,906	23,203	23,693
California	631	620	651	17.7	18.5	21.0	11,057	11,470	13,671
United States	60,236	76,559	61,741	17.0	14.9	16.6	1,031,312	1,141,188	1,026,755

World Rye Production, Yield and Acreage

Note: 000's omitted **Source: USDA**

Continent and country	Acreage† Average 1940-44	1948	1949	1950¶	Yield per acre‡ ave. 1940-44	Ave. 1940-44	Production 1948	1949	1950¶
No. America:									
Canada	911	2,103	1,182	1,168	14.5	13,222	25,340	10,011	13,346
U. S.	3,071	2,096	1,560	1,822	12.2	37,547	26,449	18,739	22,977
Total	3,982	4,199	2,742	2,990	...	50,769	51,789	28,750	36,323
Europe:									
Austria	672	640	675	680	19.9	13,400	13,000	16,000	16,500
Belgium	361	235	235	215	36.5	13,160	8,700	10,150	8,800
Bulgaria	453	....	....	....	11.9	5,372	.....	.....	.....
Czechoslovakia	3,140	1,796	1,790	....	23.8	51,000	44,000	51,000	.....
Denmark	467	413	481	381	32.2	15,032	15,747	18,464	13,580
Finland	426	375	370	375	18.7	7,946	8,300	8,600	9,200
France	1,145	1,460	1,290	1,260	16.3	18,700	26,500	25,589	24,000
West Germany	....	3,590	3,495	3,335	...	.....	112,500	130,000	118,000
Greece	140	140	110	136	11.4	1,590	2,047	1,600	1,910
Hungary	1,522	....	....	....	18.3	27,912	.....	.....	.....
Italy	251	260	260	250	21.1	5,306	5,000	5,500	5,700
Luxembourg	19	18	17	17	24.6	468	459	625	550
Netherlands	675	454	468	445	29.7	20,031	15,046	21,100	16,500
Norway	9	3	2	3	28.4	256	117	83	110
Portugal	....	692	691	684	...	.....	4,817	5,237	7,440
Rumania	530	....	....	....	13.4	7,100	.....	.....	.....
Spain	1,550	1,550	1,600	1,581	11.0	17,000	18,000	19,700	21,000
Sweden	518	395	333	313	26.7	13,816	12,280	10,882	9,610
Switzerland	34	30	29	39	35.0	1,190	1,047	1,161	1,417
U. K.	73	81	64	71	29.0	2,120	1,880	2,120	2,220
Yugoslavia	595	....	....	....	12.9	7,675	.....	.....	.....
Est. total§	31,020	30,060	29,810	29,480	...	660,000	660,000	710,000	685,000
USSR (Europe and Asia)	....	73,000	75,500	74,000	...	.....	930,000	950,000	910,000
Asia:									
Turkey	1,090	1,070	1,044	1,180	13.9	15,117	15,500	11,392	20,830
Africa:									
Un. of S. Africa	140	....	....	....	5.9	830	879	.....	.....
So. America:									
Argentina	938	1,000	1,000	....	10.7	10,061	9,842	9,500	.....
Est. world total§	94,380	109,740	110,510	109,200	...	1,500,000	1,670,000	1,715,000	1,665,000

Prepared or estimated on the basis of official statistics of foreign governments, reports of U.S. Foreign Service officers, results of office research, or other information. Prewar estimates for countries having changed boundaries have been adjusted to conform to present boundaries. Years shown refer to years of harvest in the Northern Hemisphere. Harvests of Northern Hemisphere countries are combined with those of the Southern Hemisphere which immediately follow; thus, the crop harvested in the Northern Hemisphere in 1950 is combined with preliminary forecasts for the Southern Hemisphere harvests which began late in 1950 and end early in 1951. †Figures refer to harvested areas as far as possible. ‡Yield per acre calculated from acreage and production data shown, except for incomplete periods. ¶Revised estimates for Northern Hemisphere countries; for Southern Hemisphere, preliminary forecasts based largely on acreage and weather conditions to date. §Estimated totals, which in the case of production are rounded to millions, include allowances for any missing data for countries shown and for other producing countries not shown.

U. S. Barley Production and Acreage by States

Note: By calendar years, 000's omitted **Source: USDA**

State—	Acreage, harvested Average 1939-48	1949	1950	Yield per acre, bu. Average 1939-48	1949	1950	Production, bu. Average 1939-48	1949	1950
Maine	4	5	6	29.0	31.0	35.0	113	155	210
Vermont	4	1	1	26.0	23.0	27.0	96	23	27
New York	112	72	75	26.4	25.0	34.0	2,949	1,800	2,550
New Jersey	9	13	16	29.6	40.0	32.0	268	520	512
Pennsylvania	124	135	159	30.6	40.0	35.5	3,740	5,400	5,644
Ohio	30	16	26	26.5	29.0	28.0	783	464	728
Indiana	48	21	25	24.7	27.5	27.0	1,165	578	675
Illinois	79	41	48	27.5	32.0	28.0	2,713	1,312	1,344
Michigan	164	125	115	30.0	28.5	34.0	4,960	3,562	3,910
Wisconsin	356	188	216	33.5	34.0	41.0	11,524	6,392	8,856
Minnesota	1,261	1,061	1,252	26.6	24.0	29.5	34,108	25,464	36,934
Iowa	156	28	60	25.5	25.0	32.0	4,041	700	1,920
Missouri	122	80	80	20.8	23.0	21.5	2,513	1,840	1,720
North Dakota	2,245	1,663	2,112	21.5	15.5	24.0	48,836	25,776	50,688
South Dakota	1,661	1,093	1,148	20.4	13.5	16.5	33,898	14,756	18,942
Nebraska	1,077	307	304	18.7	19.0	16.0	20,295	5,833	4,864
Kansas	750	221	254	17.1	17.0	14.0	12,468	3,757	3,556
Delaware	8	12	13	29.3	28.0	29.0	248	336	348
Maryland	73	83	89	29.4	34.0	31.0	2,219	2,822	2,759
Virginia	76	90	95	28.0	30.0	30.5	2,147	2,700	2,898
West Virginia	10	13	14	26.5	30.0	28.0	262	390	392
North Carolina	34	36	37	24.1	25.0	24.0	822	900	888
South Carolina	22	23	22	21.5	22.5	20.0	472	518	440
Georgia	7	5	5	19.6	19.0	22.0	134	95	110
Kentucky	74	63	63	23.6	26.0	23.5	1,719	1,638	1,480
Tennessee	85	69	66	20.2	18.5	18.5	1,708	1,276	1,221
Alabama	*3	2	2	*18.9	24.0	20.0	*54	48	40
Mississippi	3	2	1	24.9	25.0	25.0	64	50	25
Arkansas	9	4	4	17.8	18.0	21.0	157	72	84
Oklahoma	339	92	92	16.2	17.5	13.5	5,532	1,610	1,242
Texas	238	146	133	16.6	19.0	13.0	4,069	2,774	1,729
Montana	543	524	849	25.6	23.0	28.0	13,945	12,052	23,772
Idaho	311	297	386	35.6	34.0	36.0	11,071	10,098	13,896
Wyoming	122	163	163	29.5	29.0	28.0	3,605	4,727	4,564
Colorado	629	816	490	23.8	28.5	19.5	15,182	23,256	9,555
New Mexico	31	33	38	20.5	22.0	22.0	619	726	836
Arizona	72	136	163	34.9	40.0	40.0	2,602	5,440	6,520
Utah	117	129	120	44.1	47.0	46.0	5,184	6,063	5,520
Nevada	21	27	30	35.6	36.0	35.0	735	972	1,050
Washington	170	99	250	35.7	29.0	35.0	6,210	2,871	8,750
Oregon	268	301	370	32.3	33.0	33.0	8,774	9,933	12,210
California	1,394	1,622	1,800	28.1	29.0	32.0	39,402	47,038	57,600
United States	12,858	9,857	11,191	24.2	24.0	26.9	310,668	236,737	301,009

*Short-time average.

Canadian Reports

Following are dates of field crop reports scheduled for release by the Agriculture Division of the Dominion Bureau of Statistics during 1951. All reports issued at 3 p.m. e.s.t. or e.d.s.t. when in force, at Ottawa.

Feb. 22—Revised estimate of production and value of 1950 field crops.
April 19—Stocks of grain at March 31.
May 8—Telegraphic crop report—Canada.
May 15—Telegraphic crop report — prairie provinces.
May 17—Intentions to plant field crops. Winter-killing and spring condition of winter wheat, fall rye and hay and clover meadows. Progress of spring seeding.
May 29—Telegraphic crop report—Canada.
June 6—Telegraphic crop report — prairie provinces.
June 12—Telegraphic crop report—Canada.
June 19—Telegraphic crop report — prairie provinces.
July 4—Telegraphic crop report—Canada.
July 10—Telegraphic crop report — prairie provinces.
July 13—Condition of field crops at June 30.
July 17—Telegraphic crop report—Canada.
July 24—Telegraphic crop report — prairie provinces.
July 26—Preliminary estimate of area sown to field crops.
Aug. 8—Telegraphic crop report—Canada.
Aug. 15—August estimate of production of principal field crops, including winter wheat, fall rye, alfalfa, hay and clover and potatoes.
Aug. 17—Stocks of grain at July 31.
Aug. 21—Telegraphic crop report—Canada.
Sept. 14—September estimate of production of principal field crops, including late-sown crops, fodder, roots and potatoes.
Sept. 18—Telegraphic crop report—Canada.
Nov. 15—November estimate of production of principal field crops, including late-sown crops, oilseed crops, fodder, roots and potatoes. Area and condition of fall-sown crops.
Dec. 13—December estimate of value of field crops.

U.S. Wheat Production

Note: Wheat production in principal producing states, in million bushels. **Source: USDA**

	1950	1949	1948	1947	1946	1945	1944
Pa.	19.2	21.1	18.4	22.3	19.9	20.0	20.3
Ohio	46.6	60.0	57.6	49.0	48.5	57.5	46.8
Ind.	31.8	39.2	38.2	36.1	29.4	35.0	26.5
Ill.	27.5	46.9	41.0	29.0	19.4	24.8	24.3
Mich.	29.7	35.0	36.3	29.8	22.9	27.0	23.7
Minn.	15.4	26.0	18.4	20.6	27.1	21.2	20.7
Iowa	5.7	7.2	7.4	3.6	4.3	2.7	1.9
Mo.	24.5	35.0	39.3	24.4	18.2	18.3	22.0
N. D.	120.7	112.9	141.0	146.4	139.8	154.6	161.6
S. D.	34.0	34.3	50.4	53.6	53.2	49.7	38.8
Neb.	84.8	54.4	83.0	90.2	90.7	82.4	35.9
Kans.	178.1	164.2	231.4	286.7	213.9	208.0	191.7
Va.	9.7	8.7	9.2	8.5	8.3	7.6	11.3
Md.	6.1	6.9	6.0	7.8	7.3	6.8	11.3
Okla.	43.6	88.7	99.0	104.7	88.3	73.9	85.9
Texas	22.7	100.4	59.1	124.3	62.9	48.2	70.9
Mont.	94.0	64.1	93.7	65.3	62.9	57.1	74.8
Idaho	37.4	38.1	35.9	37.9	34.8	32.7	30.3
Colo.	39.9	49.6	64.6	59.3	37.1	35.5	18.8
Wash.	67.6	57.5	79.3	64.8	78.9	61.5	63.3
Ore.	23.7	23.2	30.0	21.6	25.2	21.8	23.1
Calif.	13.7	11.5	10.5	12.0	12.6	10.7	10.4

U.S. Wheat Acreage Harvested

Note: Harvested acreage in principal wheat producing states. 000's omitted. **Source: USDA**

State	1950	1949	1948	1947	1946	1945
Pa.	872	918	966	929	885	932
Ohio	2,118	2,353	2,353	2,179	1,831	2,129
Ind.	1,479	1,740	1,775	1,571	1,361	1,555
Ill.	1,376	1,913	1,710	1,347	1,207	1,339
Mich.	1,141	1,297	1,395	1,192	864	982
Minn.	921	1,281	1,056	1,169	1,391	1,100
Iowa	262	382	316	200	185	149
Mo.	1,362	1,946	1,785	1,321	1,213	1,304
N. D.	8,706	10,606	9,820	10,263	10,192	9,855
S. D.	3,278	4,074	3,848	3,703	3,588	3,201
Neb.	3,879	3,761	4,072	4,317	3,954	3,596
Kans.	12,280	14,279	13,221	14,855	13,147	13,416
Md.	329	362	377	370	366	366
Va.	425	472	497	487	451	490
Okla.	4,846	6,826	6,825	6,757	6,087	5,910
Texas	2,839	6,924	5,629	7,310	5,992	5,350
Mont.	4,862	5,140	4,875	4,427	4,133	3,777
Idaho	1,342	1,537	1,413	1,315	1,266	1,102
Colo.	2,362	2,884	3,074	2,523	1,875	1,483
Wash.	2,547	2,707	2,766	2,719	2,642	2,524
Ore.	952	1,050	1,052	949	984	921
Calif.	651	620	602	729	663	563

Harvesting in the U.S.

Note: Usual percentage of crops harvested in months indicated. Source: USDA.

Wheat—	Per cent—June	July	Aug.	Sept.
New York	..	79	20	1
Pennsylvania	3	90	7	..
Virginia	68	31	1	..
Ohio	15	84	1	..
Indiana	34	63	3	..
Illinois	35	59	6	..
Michigan	..	75	23	2
Minnesota	..	21	76	3
Missouri	61	38	1	..
North Dakota	..	3	75	22
South Dakota	..	31	66	3
Nebraska	3	92	5	..
Kansas	49	51	..	..
Oklahoma	70	28	..	..
Texas	70	23	..	..
Montana	..	17	60	23
Washington	..	26	55	19
United States	22.9	42.3	28.4	6.5
Oats—				
New York	..	20	70	10
Pennsylvania	..	31	64	5
Ohio	..	59	41	..
Indiana	2	72	26	..
Illinois	4	80	16	..
Wisconsin	..	31	67	2
Minnesota	..	35	62	3
Iowa	1	80	19	..
North Dakota	..	8	70	22
South Dakota	..	43	55	2
Nebraska	1	79	20	..
Kansas	27	73	..	..
Oklahoma	60	39	..	..
Texas	64	24	1	..
Montana	..	9	61	30
United States	7.9	52.9	34.2	3.8
Barley—				
Wisconsin	..	67	33	..
Minnesota	..	69	29	2
North Dakota	..	25	68	7
South Dakota	..	70	28	2
California	33	41	18	3
United States	8.2	51.6	33.9	4.9
Rye—				
New York	1	76	22	1
Pennsylvania	5	87	8	..
Indiana	38	59	3	..
Michigan	1	76	23	..
Wisconsin	2	78	20	..
Minnesota	3	84	13	..
North Dakota	..	65	35	..
South Dakota	1	82	17	..
Nebraska	9	85	6	..
United States	11.3	71.5	16.3	0.7
Buckwheat—				
New York	..	..	4	69
Pennsylvania	..	..	3	68
Michigan	..	..	3	64
United States	..	0.8	6.7	64.9
Flaxseed—				
Minnesota	..	6	50	41
North Dakota	..	..	28	62
South Dakota	..	4	37	51
Montana	..	..	30	59
United States	0.1	3.0	31.5	56.5
Rice—				
Louisiana	..	1	22	45
Texas	..	2	23	30
Arkansas	..	..	1	25
California	..	..	..	5
United States	..	0.9	15.3	33.0

Texas harvests 7% of its wheat crop in May, and Oklahoma 2%; .5% of the country's wheat crop is harvested in May, and .3% in October. One per cent of the country's oats crop (11% of the Texas crop and 1% of Oklahoma's) is harvested in May, and .2% in October. Of the barley crop, 1.2% (5% of California's crop) is harvested in May, and .2% in October. Of the rye crop, .2% is harvested in May, and .7% (1% of New York's crop) in October. Of the buckwheat crop, 26.7% is harvested in October and .9% in November. Of the flax crop, 8.9% is harvested in October. Of the rice crop, 33.8% is harvested in October, 14.6% in November, and 2.4% in December.

Buckwheat

Three cultivated species of buckwheat have been recognized, only the first two of which are grown in the U.S.: (1) Common or Japanese buckwheat having large kernels with sharp edges and slightly concave sides; (2) tartary buckwheat having small kernels with rounded sides; (3) notch-seed buckwheat, which somewhat resembles common buckwheat except that the edges or angles of the hull extend into wide rounded wings, thereby giving it a wider width. This latter is cultivated in India and China. No standards or grades for marketing purposes have been established by the U.S. government for this cereal grain.

U.S. Corn Production, Yield & Acreage by States

Note: By calendar years, 000's omitted. **Source: USDA**

State—	Acreage harvested—Average 1939-48	1949	1950	Yield per acre, bu.—Average 1939-48	1949	1950	Production, bu.—Average 1939-48	1949	1950
Maine	13	11	13	38.9	42.0	35.0	509	462	455
New Hampshire	13	12	14	41.6	44.0	45.0	538	528	630
Vermont	62	57	68	39.4	45.0	45.0	2,436	2,565	3,060
Massachusetts	40	37	38	42.4	41.0	40.0	1,693	1,517	1,520
Rhode Island	8	7	7	38.9	38.0	40.0	315	266	280
Connecticut	48	45	45	42.1	40.0	43.0	2,039	1,800	1,935
New York	671	705	740	36.1	42.0	41.0	24,241	29,610	30,340
New Jersey	189	181	177	40.7	45.0	54.0	7,676	8,145	9,558
Pennsylvania	1,343	1,378	1,337	41.2	46.5	45.5	55,274	64,077	60,834
Ohio	3,436	3,617	3,364	48.3	56.0	52.0	166,283	202,552	174,928
Indiana	4,292	4,798	4,319	48.2	52.0	49.5	207,605	249,548	213,790
Illinois	8,332	9,252	8,234	50.0	56.0	51.0	417,760	518,112	419,934
Michigan	1,656	1,790	1,683	34.2	48.0	38.5	56,482	85,920	64,798
Wisconsin	2,465	2,586	2,544	42.0	50.0	41.0	103,589	129,800	104,304
Minnesota	5,087	5,648	5,111	42.2	44.0	38.0	214,392	248,512	194,218
Iowa	10,226	11,471	9,865	51.6	48.0	47.0	527,548	550,608	463,655
Missouri	4,241	4,243	4,158	32.2	41.0	45.0	137,551	173,963	187,110
North Dakota	1,143	1,220	1,318	22.1	19.5	19.0	25,303	23,790	25,042
South Dakota	3,444	3,844	3,747	25.2	21.0	26.5	88,607	82,824	99,296
Nebraska	7,460	7,364	6,775	25.6	32.5	37.0	194,409	239,330	250,675
Kansas	2,886	2,524	2,625	22.3	29.0	35.5	64,779	73,196	93,188
Delaware	140	146	146	28.6	30.0	36.0	3,992	4,380	5,256
Maryland	471	483	473	35.0	38.0	40.0	16,522	18,354	18,920
Virginia	1,251	1,140	1,117	30.8	47.0	49.0	38,031	53,580	54,733
West Virginia	351	267	251	34.5	44.0	37.0	11,945	11,748	9,287
North Carolina	2,298	2,215	2,215	24.2	35.0	37.0	55,385	77,525	81,955
South Carolina	1,543	1,404	1,446	16.6	22.5	23.0	25,594	31,590	33,258
Georgia	3,606	3,300	3,465	12.6	13.0	16.5	44,857	59,400	57,172
Florida	712	691	712	10.6	13.0	14.0	7,527	8,983	9 968
Kentucky	2,442	2,367	2,130	30.6	37.5	37.0	74,129	88,762	78,810
Tennessee	2,452	2,120	2,141	26.5	32.5	34.0	64,072	68,900	72,794
Alabama	3,062	2,736	2,845	14.7	21.0	22.5	44,498	57,456	64,012
Mississippi	2,623	2,075	2,282	16.9	23.0	26.5	43,725	47,725	60,473
Arkansas	1,713	1,182	1,430	18.7	24.0	27.0	31,598	28,368	38,610
Louisiana	1,233	802	866	15.8	23.0	23.0	19,206	18,446	19,918
Oklahoma	1,591	1,336	1,269	17.9	22.0	25.0	28,171	29,392	31,725
Texas	3,990	2,587	3,130	16.1	22.5	21.0	64,272	58,208	65,730
Montana	184	185	202	16.8	8.5	19.0	3,119	1,572	3,838
Idaho	37	34	35	44.2	47.0	47.0	1,644	1,598	1,645
Wyoming	98	62	68	14.7	17.5	17.0	1,402	1,085	1,156
Colorado	802	679	604	18.0	25.5	24.0	14,122	17,314	14,496
New Mexico	171	135	161	14.0	16.0	14.0	2,402	2,160	1,414
Arizona	33	35	36	10.6	12.0	11.0	352	420	396
Utah	24	25	25	30.1	36.0	40.0	725	900	960
Nevada	3	3	3	30.8	30.0	35.0	89	90	105
Washington	24	17	15	44.9	52.0	58.0	1,006	884	870
Oregon	44	30	28	34.7	36.5	37.0	1,502	1,095	1,036
California	72	72	86	32.2	33.0	34.0	2,307	2,376	2,924
United States	88,007	87,029	83,302	32.9	38.8	37.6	2,900,932	3,379,436	3,131,009

This table covers corn for all purposes, including hogged and siloed corn, and that cut and fed without removing the ears, as well as that hucked and snapped for grain. The yield for grain, with an allowance for varying yields of corn for other purposes, is applied to the total acreage to obtain an equivalent production expressed in terms of grain.

U.S. Acreage Sown to Winter Wheat by States

Note: Acreage sown in fall, 000's omitted **Source: USDA**

State—	Acreage seeded*—Crops of 1939-48	Crop of—1949	1950	1951	Crop of '51 as % of crop of 1950	Production, bu.—Crops of 1939-48	Crop of—1949	1950	1951†
New York	320	425	442	469	106	7,768	11,676	12,470	12,194
New Jersey	81	107	109	106	97	1,355	1,992	1,677	1,590
Pennsylvania	904	926	899	872	97	18,087	21,114	19,184	18,312
Ohio	1,977	2,377	2,172	2,150	99	44,385	60,902	46,596	47,300
Indiana	1,440	1,757	1,564	1,627	104	28,188	39,150	31,798	34,167
Illinois	1,537	1,944	1,516	1,819	120	27,949	46,672	27,440	36,380
Michigan	908	1,303	1,175	1,232	105	21,544	35,019	29,666	30,800
Wisconsin	37	29	26	23	88	687	608	529	460
Minnesota	145	85	76	76	100	2,374	1,418	1,220	1,292
Iowa	236	395	265	257	97	4,126	6,973	5,500	4,626
Missouri	1,536	2,125	1,661	1,744	105	22,358	35,028	24,516	22,672
South Dakota	268	293	363	417	115	3,059	2,800	3,562	5,838
Nebraska	3,638	4,596	4,044	4,368	108	60,717	53,316	84,128	96,096
Kansas	13,205	16,244	13,807	14,497	105	188,510	164,208	178,060	202,958
Delaware	93	93	95	93	97	1,228	1,202	1,037	1,008
Maryland	374	386	351	340	97	6,817	6,878	6,084	5,780
Virginia	523	597	451	460	102	7,998	8,732	7,862	7,820
West Virginia	112	85	80	77	96	1,588	1,424	1,221	1,155
North Carolina	485	483	415	436	105	6,309	5,421	5,438	6,104
South Carolina	240	203	161	150	93	3,185	1,930	2,184	1,650
Georgia	232	205	166	146	88	3,419	2,280	1,909	1,460
Kentucky	437	420	374	362	94	5,260	5,264	3,900	3,872
Tennessee	370	327	294	250	85	4,729	4,350	3,376	3,250
Alabama	15	15	15	11	73	188	180	180	143
Mississippi	15	16	9	7	78	254	264	126	105
Arkansas	45	37	33	31	94	386	390	285	294
Oklahoma	5,872	7,552	5,966	6,443	108	71,156	88,725	43,614	77,316
Texas	5,272	7,495	5,996	6,416	107	56,350	100,398	22,712	57,744
Montana	1,513	1,676	1,475	1,593	108	26,748	24,264	25,212	30,267
Idaho	736	1,038	851	894	105	17,690	22,388	19,992	21,456
Wyoming	188	288	282	338	120	3,180	5,638	5,130	6,422
Colorado	1,704	3,402	3,130	3,443	110	29,712	45,475	38,199	48,202
New Mexico	454	588	560	700	125	3,665	5,172	645	5,600
Arizona	29	30	30	28	93	583	700	672	588
Utah	224	366	359	373	104	4,370	6,922	5,797	6,341
Nevada	5	6	4	5	125	147	180	120	140
Washington	1,722	2,551	2,219	2,352	106	44,675	48,172	56,512	63,504
Oregon	728	910	774	828	107	17,540	17,302	18,450	20,700
California	708	740	710	710	100	11,037	11,470	13,671	13,490
United States	47,954	62,913	52,887	56,193	106.1	759,821	895,101	750,666	899,096

*Total acreage seeded for all purposes. †Indicated Dec. 1, 1950.

U.S. Winter and Spring Wheat Crop and Acreage

Note: By calendar years, 000's omitted. **Source: USDA**

State—	Acreage, harvested— Average 1939-48	1949	1950	Yield per acre, bu.— Average 1939-48	1949	1950	Production, bu.— Average 1939-48	1949	1950
New York	310	417	430	24.8	28.0	29.0	7,768	11,676	12,470
New Jersey	60	83	78	22.6	24.0	21.5	1,366	1,992	1,677
Pennsylvania	882	918	872	20.4	23.0	22.0	18,087	21,114	19,184
Ohio	1,931	2,353	2,118	32.8	25.5	22.0	44,385	60,002	46,596
Indiana	1,399	1,740	1,479	19.8	22.5	21.5	28,188	39,150	31,798
Illinois	1,416	1,905	1,372	19.2	24.5	20.0	27,949	46,672	27,440
Michigan	894	1,297	1,141	23.6	27.0	26.0	21,544	35,019	29,666
Wisconsin	35	27	23	19.7	22.5	22.0	687	608	529
Minnesota	125	81	61	18.9	17.5	20.0	2,374	1,418	1,220
Iowa	201	367	250	20.0	19.0	22.0	4,126	6,973	5,500
Missouri	1,362	1,946	1,362	16.1	18.0	18.0	22,358	35,028	24,516
South Dakota	204	224	285	14.0	12.5	12.5	3,059	2,800	3,562
Nebraska	3,183	3,677	3,824	18.5	14.5	22.0	60,717	53,316	84,128
Kansas	11,659	14,279	12,280	16.0	11.5	14.5	188,510	164,208	178,060
Delaware	64	65	61	19.1	18.5	17.0	1,228	1,202	1,037
Maryland	350	362	329	18.4	19.0	18.5	6,417	6,878	6,086
Virginia	489	472	425	16.3	18.5	18.5	7,998	8,732	7,862
West Virginia	94	73	66	17.1	19.5	18.5	1,588	1,424	1,221
North Carolina	450	417	375	15.1	13.0	14.5	6,809	5,421	5,438
South Carolina	233	193	156	13.8	10.0	14.0	3,185	1,930	2,184
Georgia	195	190	152	12.3	12.0	12.5	2,419	2,280	1,900
Kentucky	348	301	260	15.0	17.5	15.0	5,260	5,268	3,900
Tennessee	345	300	270	13.7	14.5	12.5	4,729	4,350	3,375
Alabama	13	12	12	13.9	15.0	15.0	188	180	180
Mississippi	11	12	8	24.7	22.0	21.0	254	264	126
Arkansas	30	26	19	12.7	15.0	15.0	386	390	285
Oklahoma	5,080	6,825	4,846	13.8	13.0	9.0	71,156	88,725	43,614
Texas	4,463	6,924	2,839	12.4	14.5	8.0	56,350	100,398	22,712
Montana	1,311	1,348	1,146	20.3	18.0	22.0	26,748	24,264	25,212
Idaho	690	995	816	25.6	22.5	24.5	17,690	22,388	19,992
Wyoming	164	275	270	18.6	20.5	19.0	3,180	5,638	5,130
Colorado	1,140	2,675	2,247	19.0	17.0	17.0	29,712	45,475	38,199
New Mexico	317	431	129	11.3	12.0	5.0	3,665	5,172	645
Arizona	27	28	28	21.4	25.0	24.0	583	700	672
Utah	214	355	341	20.3	19.5	17.0	4,370	6,922	5,797
Nevada	5	6	4	27.8	30.0	30.0	147	180	120
Washington	1,571	2,141	2,055	28.2	22.5	27.5	44,675	48,172	56,512
Oregon	680	769	738	25.7	22.5	25.0	17,540	17,302	18,450
California	631	620	651	17.7	18.5	21.0	11,037	11,470	13,671
United States	42,895	55,129	43,816	17.5	16.2	17.1	758,821	895,101	750,666

SPRING WHEAT OTHER THAN DURUM

State—	Acreage, harvested— Average 1939-48	1949	1950	Yield per acre, bu.— Average 1939-48	1949	1950	Production, bu.— Average 1939-48	1949	1950
New York	4	4	5	19.4	21.0	23.0	89	84	115
Illinois	11	8	4	21.6	23.0	24.5	225	184	98
Wisconsin	50	85	63	21.2	22.5	24.5	1,095	1,912	1,544
Minnesota	1,094	1,105	774	17.3	15.5	17.0	18,809	17,128	13,158
Iowa	14	15	12	17.2	16.0	20.0	233	240	240
North Dakota	6,734	7,514	6,387	15.1	10.5	14.0	102,415	78,897	89,418
South Dakota	2,552	3,512	2,669	12.5	8.0	10.0	32,673	28,096	26,690
Nebraska	86	84	55	12.7	13.0	12.0	1,918	1,092	660
Montana	2,603	3,792	3,716	15.5	10.5	18.5	40,301	39,816	68,746
Idaho	389	542	526	30.6	29.0	33.0	11,958	15,718	17,358
Wyoming	81	75	64	16.4	17.5	17.0	1,317	1,312	1,088
Colorado	152	209	115	17.4	19.5	15.0	2,535	4,076	1,725
New Mexico	20	21	20	14.3	17.5	15.5	290	368	310
Utah	65	73	67	32.1	34.5	33.0	2,080	2,518	2,211
Nevada	12	19	13	27.7	31.0	27.0	345	589	351
Washington	726	566	492	22.0	16.5	22.5	15,627	9,339	11,070
Oregon	187	281	214	23.3	21.0	24.5	4,366	5,901	5,243
United States	14,805	17,905	15,196	15.9	11.6	15.8	235,738	207,270	240,025

DURUM WHEAT

State—	Acreage, harvested— Average 1939-48	1949	1950	Yield per acre, bu.— Average 1939-48	1949	1950	Production, bu.— Average 1939-48	1949	1950
Minnesota	56	95	86	17.0	15.0	12.0	926	1,425	1,032
North Dakota	2,171	3,092	2,319	15.0	11.0	13.5	31,813	34,012	31,306
South Dakota	309	338	324	13.3	10.0	11.5	4,014	3,380	3,726
Three states	2,535	3,525	2,729	14.8	11.0	13.2	36,753	38,817	36,064

U.S. Flaxseed Production and Acreage by States

Note: By calendar years, 000's omitted. **Source: USDA**

State—	Acreage, harvested— Average 1939-48	1949	1950	Yield per acre, bu.*— Average 1939-48	1949	1950	Production, bu.*— Average 1939-48	1949	1950
Illinois	†7	1	1	†12.9	13.0	14.0	†96	13	14
Michigan	7	8	6	8.6	10.0	6.0	58	80	30
Wisconsin	11	17	9	11.4	13.0	16.0	128	221	126
Minnesota	1,320	1,628	1,205	10.1	10.0	11.0	13,487	16,280	13,256
Iowa	157	107	82	12.3	13.5	16.5	1,940	1,444	1,353
Missouri	9	6	4	6.2	6.5	7.0	56	39	28
North Dakota	1,110	1,803	1,695	7.3	7.5	9.5	8,617	13,522	16,102
South Dakota	396	708	503	9.4	7.0	9.0	3,809	4,956	4,527
Kansas	144	34	27	6.7	6.5	7.0	1,002	221	189
Oklahoma	19	1	5	6.0	6.0	9.0	112	6	27
Texas	62	329	211	8.2	6.0	6.0	498	1,974	1,266
Montana	206	59	72	6.8	5.0	9.0	1,424	295	648
Wyoming	1	1	1	†4.8	5.0	5.0	5	5	5
Arizona	18	38	13	23.6	25.0	19.0	438	950	247
Washington	3	2	1	†11.1	12.0	14.0	28	24	14
Oregon	4	8	2	†11.2	11.0	8.0	48	88	16
California	163	174	59	18.6	22.0	24.0	3,015	3,828	1,416
United States	3,643	4,924	3,893	9.5	8.9	10.1	34,752	43,946	39,263

*Estimates do not include flaxseed harvested from flax grown for fiber in Oregon—30,700 bu. in 1949 and 8,600 bu. in 1950. †Short-time average.

Grain Crops in Canada

Note: By crop years, in bushels and acres, 000's omitted. Source: Dominion Bureau of Statistics.

BUSHELS

	Wheat	Barley	Buckwheat	Corn
1950*...	461,730	171,328	3,859	13,839
1949...	367,406	120,408	3,570	13,650
1948...	393,342	154,643	3,911	12,417
1947...	336,758	141,372	5,187	6,682
1946...	413,725	148,887	4,881	10,661
1945...	305,912	157,757	5,246	10,356
1944...	435,535	194,712	5,553	11,700
1943...	283,660	215,562	6,243	7,775
1942...	556,134	259,156	5,207	14,372
1941...	311,825	110,566	4,788	13,362
1940...	540,190	104,256	6,692	6,956
1939...	520,623	103,147	6,848	8,097
1938...	360,010	102,242	7,079	7,690
1937...	182,410	83,124	7,745	5,415
1936...	229,218	71,922	8,601	6,083
1935...	281,935	83,975	7,948	7,765
1934...	275,849	63,742	8,635	6,798

	Flaxseed	Oats	Rye	Peas
1950*...	4,540	420,328	13,346	829
1949...	2,284	317,916	10,011	936
1948...	17,353	357,703	25,348	1,469
1947...	12,241	278,670	13,217	1,788
1946...	6,402	371,069	8,811	2,333
1945...	7,593	381,596	5,888	1,363
1944...	9,668	499,643	8,526	1,269
1943...	17,911	482,022	7,143	1,562
1942...	14,992	651,954	24,742	1,692
1941...	6,566	305,575	11,659	1,319
1940...	3,049	380,526	13,994	1,366
1939...	2,044	384,407	15,307	1,307
1938...	1,259	371,382	10,988	1,365
1937...	697	268,442	5,771	1,199
1936...	1,795	271,778	4,281	1,229
1935...	1,666	394,348	9,606	1,616
1934...	910	321,120	4,706	1,588

ACRES

	Wheat	Barley	Buckwheat	Corn
1950*...	27,021	6,635	155	305
1949...	27,540	6,017	170	272
1948...	24,106	6,493	186	252
1947...	24,261	7,465	290	176
1946...	24,076	6,259	218	252
1945...	23,414	7,350	261	237
1944...	23,284	7,291	256	270
1943...	16,849	8,397	286	230
1942...	21,586	6,972	239	358
1941...	21,852	5,304	238	320
1940...	28,726	4,342	326	196
1939...	26,756	4,347	335	183
1938...	25,930	4,453	376	180
1937...	25,570	4,331	395	166
1936...	25,289	4,432	398	164
1935...	24,115	3,886	380	167
1934...	23,985	3,612	407	161

	Flaxseed	Oats	Rye	Peas
1950*...	547	11,575	1,168	49
1949...	323	11,389	1,182	58
1948...	1,935	11,201	2,103	82
1947...	1,571	11,049	1,156	128
1946...	841	12,074	716	127
1945...	1,059	14,393	487	93
1944...	1,323	14,315	648	84
1943...	2,948	15,407	576	102
1942...	1,492	13,782	1,336	90
1941...	996	12,265	958	80
1940...	397	12,298	1,035	82
1939...	307	12,789	1,103	76
1938...	210	13,010	741	80
1937...	241	13,048	894	84
1936...	468	13,118	635	92
1935...	214	14,096	719	94
1934...	227	15,731	684	95

*Preliminary.

U.S. Spring Wheat Seeded

Note: Estimates of acreage sown compared with revised estimate of acreage in previous year. 000's omitted. **Source: USDA**

State	All spring wheat 1949	1950	Durum wheat 1949	1950	Other spring wheat 1949	1950
N. Y.	5	5	....	....	4	5
Ill.	8	4	....	....	8	4
Wis.	86	64	....	....	86	64
Minn.	1,215	891	97	90	1,118	801
Iowa	15	12	....	....	15	12
N. D.	11,040	8,915	3,263	2,382	7,777	6,533
S. D.	4,075	3,165	360	342	3,715	2,823
Neb.	90	63	....	....	90	63
Mont.	4,230	3,807	....	....	4,230	3,807
Idaho	559	531	....	....	559	531
Wyo.	85	70	....	....	85	70
Colo.	220	141	....	....	220	141
N. M.	23	24	....	....	23	24
Utah	75	69	....	....	75	69
Nev.	20	15	....	....	20	15
Wash.	607	510	....	....	607	510
Ore.	297	223	....	....	297	223
U. S.	18,649	14,509	3,720	2,814	18,929	15,695

INFORMATION on FEED INDUSTRY

EXPANDED domestic consumption of meat, milk and poultry products, increasing demands from the military forces and the possibility that the U.S. will have to nourish countless numbers of persons overseas, particularly in Asia, all coupled with a food producing capacity at an all-time high, point to continued growth and activity in the feed industry in 1951.

Recognized as a sound and vital part of the nation's agricultural economy, the industry has geared, for the second time in a decade, to take a hand in all-out food production in a world at war.

A high consumer buying power for meat, dairy and poultry products, plus military needs and overseas commitments is expected to hold formula feed tonnage in 1951 at 1950's high level, estimated by trade sources at 30 million tons. This even may be expanded further as the demand for these products continues to rise.

The industry potential lies far beyond that figure. Perhaps the production can be doubled or tripled in the foreseeable future. Factors lying behind this reasoning within the industry include the increasing population and the rapid advancement in nutritional science, through which breeders have adopted better breeding, management and sanitation programs and are feeding more efficiently than ever before.

About 6,000 feed manufacturers participated in producing the 1950 total. Of these, about 2,700 produced approximately 22 million tons. In the U.S. there are 25 or 30 firms producing 12,000 or more tons of formula feed monthly, and perhaps another 125 producing from 1,000 to 12,000 tons a month.

Feedstuffs purchases by farmers probably will be larger in 1951 than in 1950. Increase in total livestock numbers, more profitable relationship of milk and egg prices to feed costs, and continuation of the trend toward larger use of protein supplement and formula feeds to obtain high production will tend to lift tonnage. New nutritional discoveries as to vitamins, trace minerals and antibiotics have increased the advantage of formula feeds since, in many cases, these substances can be supplied most effectively through such feeds. Nationally, feeds bought, including grains and hay as well as by-product and formula feeds, constitute the farmer's largest item of production expense. They have exceeded $3 billion annually the last few years.

The present outlook indicates that feed supplies will be adequate to take care of livestock production for the feeding year, but it is likely that the year's feeding operations will use up about 200 million bushels of the corn carryover. Protein supplies appear adequate, but a short crop in 1951 would prove serious.

Livestock production trends in 1951 will slant upwards, particularly those for swine and broilers. Production of other types of poultry will remain at 1950 levels, or perhaps just a little under. Beef cattle and sheep numbers will increase, and dairy cattle numbers are expected to show no major change.

Rules Governing Feed Trade

The following rules are used by the Grain & Feed Dealers National Assn. as the basis of settlement for disputes between members. They are generally recognized throughout the industry in arbitrating any disagreements.

Rule 1. Trade: It shall be the duty of both buyer and seller to include in their original articles of trade, however conducted, the following specifications:

Date of contract;
Number of sacks, tons or cars;
Kind and grade of feed;
Price;
Rate basing point;
Time of shipment;
Terms of payment, sight draft unless otherwise specified.

Rule 2. Confirmation: (a) It shall be the duty of both buyer and seller, not later than the close of business day following date of trade, to mail, each to the other, a confirmation in writing (the buyer a confirmation of purchase and the seller a confirmation of sale), setting forth the specifications as agreed upon in the original articles of trade. Upon receipt of said confirmation the parties thereto shall carefully check all specifications named therein and, upon finding any differences, shall immediately notify the other party to the contract, by wire or telephone, and confirm in writing, except in the case of manifest errors and differences of minor character, in which event notice by return mail will suffice.

(b) When a trade is made through a broker, it shall be the duty of the broker, not later than the close of business day following date of trade, to send a written confirmation to each of the principals (to the buyer a confirmation of sale and to the seller a confirmation of purchase) setting forth the specifications of the trade as made by him. Upon receipt of said confirmation, the parties thereto shall carefully check all specifications named therein and, upon finding any differences, shall immediately notify the other party to the contract by wire or telephone, and confirm in writing. In default of such notice the contract shall be filled in accordance with the terms of the confirmation issued by the broker.

Rule 3. Carload: A carload shall be not less than the minimum weight prescribed by the Interstate Commerce Commission at the time of sale.

In the event the minimum weight prescribed by the Interstate Commerce Commission is increased between the date of sale and date of shipment, the seller shall deliver the minimum weight prescribed by law at that time, any overage from the original contract to be invoiced at market price on date of shipment.

When feed is sold by the car or carloads and no tonnage is specified in the contract, any disputes or adjustments in case of cancellation or nondelivery shall be based on 30-ton cars.

Rule 4. Bills of Lading: Bills of lading attached either to invoices or to drafts shall be original and negotiable and in conformity with the specifications of the contract on which the shipment is to apply, and shall be signed in accordance with the rules of carriers. Any loss resulting from irregular or incorrect bills of lading shall be paid by the seller.

Rule 5. Demurrage and/or Additional Charges: The seller shall be liable for any demurrage, and/or additional charges accruing on feed billed to "shipper's order," when such charges can be shown to have accrued by reason of the inability of the buyer, through act of the seller or his agent, to get possession of the bill of lading whenever said bill of lading is necessary to furnish disposition.

Rule 6. Shortage, Damage and/or Overcharge: (a) All claims for shortage and/or damage shall be made by the receiver within fifteen (15) days after arrival, and must be accompanied by paid expense bill with railroad agent's notations as to damages; likewise condition of equipment and seals.

Rule 7. Origin of Feed: (a) A sale of feedstuffs shall not of necessity mean that the feedstuffs will originate at the home address of the seller, but must be of domestic origin unless otherwise specified at time of sale.

(b) A sale of feedstuffs contemplates shipment from mills on or after the date of sale, unless otherwise specified.

Rule 8. Privileges: In all delivered sales to any terminal markets the point specified shall be considered as a rate basis only and not necessarily final destination of goods, and shipment shall be made to any point and via any line open for business designated by the buyer which is reached by lake, or lake-and-rail lines during the season of navigation, or by all-rail trunk lines at other times, provided shipment is made within contract time, and provided further, that such routing is in accord with transit arrangements of shipper.

Rule 9. Time of Shipment: (a) Immediate or rush shipment shall mean shipment within three (3) calendar days from the date of receipt of shipping instructions, including day instructions are received by seller.

(b) Quick shipment shall mean shipment within seven (7) calendar days from date or receipt of shipping instructions, including day instructions are received by seller.

(c) Prompt shipment shall mean shipment within fourteen (14) calendar days from the date of receipt of shipping instructions, including day instructions are received by seller.

(d) **Unspecified Shipment:** Where shipment is not specified prompt shipment is understood.

(e) Loaded, spot, instant or on track shall mean that the goods are actually loaded and ready for billing, and the lading must be dated on the day of sale.

(f) In transit shall mean that the lading must be dated at least one day prior to date of sale.

(g) **Deferred Shipment:** In the purchase and sale of feed for deferred shipment following specifications shall govern:

Where a specific number of days is not specified in contract, but the time is referred to as first half or second half of a given month, it shall be understood that up to midnight of the 15th shall be considered the first half (this including February), the remainder of the month to be considered as second half.

(h) **Season Shipment:** Season shipments shall mean shipment any time, at the seller's option, between the date of sale and Dec. 31, of the current year, inclusive.

(i) **Weekly Shipments:** First week in .....; second week in.....; etc., shall be construed as meaning:

First to seventh day inclusive.

U.S. Formula Feed Industry Statistics—1947, 1939

Note: These figures cover establishments engaged primarily in manufacturing prepared feeds for animals and fowls. Prepared feeds include those made and milled from grains; animal, marine and vegetable proteins; alfalfa meals, bone meal, calcium carbonate, manganese, and other mineral supplements; fish liver oils, distillers solubles, and other vitamin supplements. Some of the establishments in this industry mill the grain they use, and others purchase all their materials. Mills primarily engaged in cracking grains, now included in this industry, were included in the Flour and Meal Industry in previous years. **Source: U.S. Bureau of the Census**

(Money figures and man-hours in millions)

Item—	1947	1939
Number of establishments	2,689	1,383
All employees:		
Number (average for the year)	55,347	24.177
Salaries and wages (total)	$143.3	31.8
Production and related workers:		
Number (average for the year)	40,266	15,401
Man-hours (total)	92.8	n.a.
Wages (total)	$93.6	$16.3
Value added by manufacture*	$394	$99
Cost of materials, fuel, electricity and contract work	$1,736	$303
Value of shipments†	$2,130	$402
Expenditures for new plant and equipment	$34.8	n.a.

n.a. Not available.
*For 1947, value of shipments less cost of materials, fuel, electricity, and contract work. For 1939, value of production less cost of materials, fuel, electricity, and contract work.
†Value of production for 1939.
‡Prepared feeds amounted to 92% of the total value of shipments of the industry in 1947.

Eighth to fourteenth day inclusive.
Fifteenth to twenty-first day inclusive.
Twenty-second to last day of month inclusive.

The fourth week in any month may consist of from seven to ten days.

First calendar week in.....; second calendar week in.....; etc., shall be construed as meaning the respective weeks as shown on the calendar. A calendar week may consist of from one to seven days.

(j) **Scattered shipment during any contract period:** The term "scattered shipment" is meaningless unless specifically qualified at the time of sale.

Rule 10. Evidence of Shipping Date: (a) On carload shipments, the date shown by the railroad agent's signature on a properly executed and signed bill of lading shall be the governing factor as to date of shipment, unless conclusive evidence to the contrary can be shown.

(b) On truckloads, dray tickets or properly signed receipts by the truck transportation company shall be accepted as evidence of the date of shipment.

(c) Dray tickets or shipping receipts when dated and signed by railroads in terminal markets shall also be accepted as evidence of shipment.

(d) In terminal markets, where the loading is made on a railroad line other than the one which will perform the road haul, and line haul carrier will not sign lading until the car is received at its rails, a switching order carrying full shipping instructions, given to and duly signed and dated by the authorized agent of the carrier on whose line the car is loaded, shall be evidence that the car is loaded within the life of the contract except that when the last day of the contract period falls on Saturday, and shipment is made from a station at which the carrier has no agent on duty on Saturday, Seller shall be deemed to have fulfilled his obligation if the bill of lading is signed not later than noon of the next business day.

Rule 11. Shipping Directions: (a) Unless otherwise agreed in the contract all sales are understood to be for shipment at Seller's option at any time during time of shipment specified or provided for in contract.

(b) Shipping directions on sales for spot, immediate or quick shipment, or for shipment within less than fourteen (14) days, must be furnished by Buyer at the time contract is made; and if so furnished, Seller shall make shipment within time of shipment specified or provided for in contract.

(c) Shipping directions on sales for prompt shipment must be furnished by Buyer as follows: If not demanded by Seller, shipping directions must be furnished within fourteen (14) days from making of contract, and if demanded by Seller at any time at or after making of contract shipping directions must be furnished within three (3) days after such demand; and if so furnished, Seller shall make shipment within fourteen (14) days after receipt of shipping directions.

(d) Shipping directions on sales for shipment within fourteen (14) days or more but not more than thirty-one (31) days from making of contract must be furnished by Buyer as follows: If not demanded by Seller, shipping directions must be furnished within contract time; and if demanded by Seller at any time at or after making of contract, shipping directions must be furnished within three (3) days after such demand; and if shipping directions, whether demanded or not, are furnished by Buyer within three (3) days after making of contract, Seller shall make shipment within contract time.

(e) Shipping direction on sales for shipment extending more than thirty-one (31) days from making of contract are not due from Buyer until commencement of contract time of shipment but must be furnished by Buyer as follows: If not demanded by Seller, shipping directions must be furnished by Buyer within contract time of shipment; if demanded by Seller at any time at or after commencement of

Formula Feed Industry, General Statistics, by Divisions and States—1947

Note: Dollars and man-hours, 000's omitted. These figures cover establishments engaged primarily in manufacturing formula feeds for animals and fowls. **Source: U.S. Bureau of the Census**

Industry, division and state	Number of establishments	All employees: Number (average for the year)	All employees: Salaries and wages, total	Production & related workers: Number (average for the year)	Man-hours total	Wages, total	Value added by manufacture	Cost of materials, fuel, electricity and contract work	Value of products shipped	Expenditures for new plant and equipment
Prepared animal feeds, total*	**2,689**	**55,347**	**$143,301**	**40,266**	**92,751**	**$93,579**	**$394,236**	**$1,736,027**	**$2,130,263**	**$34,791**
New England	65	1,870	4,978	1,435	3,186	2,461	15,200	88,900	104,100	1,435
Middle Atlantic	378	8,298	24,818	6,104	14,104	16,810	72,327	382,613	454,940	3,899
New York	147	5,056	16,528	3,654	8,334	11,146	51,032	280,409	331,441	2,824
New Jersey	55	932	2,456	686	1,565	1,680	6,906	25,385	32,291	377
Pennsylvania	176	2,310	5,834	1,764	4,206	3,984	14,389	76,819	91,208	698
East North Central	551	11,828	32,547	7,219	16,163	17,910	81,239	357,748	438,987	7,041
Ohio	137	3,107	8,537	2,356	5,387	6,061	23,853	132,046	155,899	1,536
Indiana	126	1,862	4,651	1,311	2,953	3,253	11,408	65,416	76,284	1,142
Illinois	127	5,407	15,192	2,449	5,229	5,892	36,202	113,940	150,142	3,288
West North Central	694	10,061	24,668	7,486	17,990	17,214	76,118	256,389	332,507	8,091
Minnesota	153	1,747	4,510	1,317	2,966	3,117	16,112	56,923	73,035	1,422
Iowa	151	2,091	4,995	1,363	3,255	3,100	17,581	48,632	66,213	1,208
Missouri	114	2,725	6,633	2,018	4,799	4,542	22,188	89,321	111,509	2,065
South Atlantic	234	5,732	12,562	4,417	10,339	8,230	33,570	162,926	196,496	3,082
Virginia	49	1,095	2,346	772	1,806	1,411	5,813	31,650	37,463	721
North Carolina	57	1,395	2,870	1,153	2,645	2,002	8,227	37,739	45,966	498
South Carolina	16	314	608	259	615	429	1,692	8,500	10,192	76
Georgia	33	915	1,587	726	1,678	1,164	5,495	22,737	28,232	367
East South Central	110	4,173	9,085	3,322	7,803	6,050	27,345	135,502	162,847	2,681
Kentucky	28	584	1,396	475	1,098	1,013	3,341	19,439	22,780	216
Tennessee	53	2,124	4,289	1,609	3,692	2,582	16,534	66,714	82,248	1,022
Alabama	17	917	2,345	793	1,992	1,802	4,704	33,022	37,726	631
Mississippi	12	548	1,055	445	1,021	653	3,766	16,327	20,093	812
West South Central	207	5,175	11,386	4,038	9,419	7,596	28,664	127,905	156,569	2,297
Arkansas	35	594	1,163	461	1,010	725	3,244	19,382	22,626	356
Texas	114	3,225	7,145	2,425	5,759	4,727	18,591	81,386	99,977	1,427
Mountain	141	1,758	4,289	1,464	3,474	3,211	12,511	33,941	46,452	1,283
Idaho	19	195	482	159	369	360	1,324	5,217	6,541	162
New Mexico	11	117	234	102	226	191	908	781	1,689	16
Pacific	309	6,452	18,968	4,781	10,273	13,097	47,262	190,103	237,365	4,982
California	295	4,828	14,424	3,512	7,426	9,719	37,711	148,938	186,649	3,767

*For each producing state not shown separately in the table there are shown below the number of establishments and, in parentheses, the number of employees for states represented by three or more companies, when possible.

Prepared animal feeds: New England, Maine, 4 (61); New Hampshire, 6 (141); Vermont, 17 (628); Massachusetts, 27 (822); Connecticut, 11 (218); **East North Central,** Michigan, 68 (518); Wisconsin, 93 (934); **West North Central,** North Dakota, 12 (31); South Dakota, 16 (141); Nebraska, 111 (1,441); Kansas, 137 (1,885); **South Atlantic,** Delaware, 12 (324); Maryland, 33 (657); West Virginia, 10 (241); Florida, 24 (791); **West South Central,** Louisiana, 14 (676); Oklahoma, 44 (681); **Mountain,** Montana, 9 (91); Wyoming, 2; Colorado, 60 (705); Arizona, 13 (362); Utah, 23 (246); Nevada, 4; **Pacific,** Washington, 80 (749); Oregon, 54 (875).

time of shipment specified in contract, shipping directions must be furnished within three (3) days after such demand; and if so furnished by the Buyer, provided the same are received by the Seller at least fourteen (14) days before the last day of contract time of shipment, Seller shall make shipment within contract time.

(f) If, in any of the cases above mentioned and while the contract is still in force, shipping directions are furnished after the first three (3) days of time of shipment specified or provided for in the contract shall have expired, the time of shipment shall be extended so that Seller shall have the same amount of time after the receipt of shipping directions, within which to make shipment, as the length of time of shipment specified or provided for in the contract; and if so furnished, the Seller shall make shipment within the time of shipment as so extended under foregoing provisions.

(g) A change in specifications previously filed with the Seller does not extend any contract except upon mutual agreement at the time such change is requested.

Rule 12. Refusal of Shipment: Failure to make any shipment in keeping with the terms and conditions of a contract shall be grounds for the refusal only of such shipment or shipments, and not for the recession of the entire contract or any other contract between Buyer and Seller.

Rule 13. Condition Guaranteed Upon Arrival: Shipment on contracts shall be guaranteed by the Seller to arrive at final destination, cool, sound and sweet, with the following exception: (a) When shipments are ordered to a reconsignment point, Seller shall not be responsible for condition at final destination unless shipments are ordered forward from such reconsignment points within 48 hours after arrival, and in no case shall Seller be responsible for condition at final destination if a second reconsignment or diversion is made.

(b) It shall be the duty of the Buyer to ascertain and report the condition of the shipment not later than 12:00 o'clock noon of the next business day after arrival at final destination, otherwise the Seller's liability ceases at the expiration of such time.

(c) A Buyer receiving a shipment that is out of condition on arrival and handled as outlined in preceding paragraphs, shall upon Seller's request, unload, recondition, and salvage to best advantage of the Seller whenever practical to do so.

If Buyer is unable to handle as requested, Seller shall dispose of the shipment and be obligated to make replacement, such replacement to be made by a new shipment within seven (7) calendar days from the date of refusal by the Buyer.

Rule 14. Time Limit of Contract; Breach of Contract; and Procedure: A contract shall remain in force and effect for both Seller and Buyer until one or the other shall give due notice in regard to its fulfillment as outlined in the following subsections:

(a) Buyer's Liability: It shall be the duty of the Seller, in event of default on contract, to notify the Buyer of that fact by wire or telephone prior to noon of the day following the date of expiration of the contract.

Upon receipt of such notice, the Buyer shall, within twenty-four (24) hours thereafter, advise the Seller either by wire, telephone or mail which of the following rights he elects to exercise:

(1) Cancel that part of the contract upon which there has been default, without penalty to Seller, or

(2) Require Seller to pay the difference between the contract price and the market price in the market on which the contract is based on the date of cancellation, or

(3) Buy in the open market a like quantity and quality of feedstuffs for Seller's account, Seller to pay Buyer the loss incurred.

In the event that the Seller fails to ship as required by the contract or violates any of the other terms of the contract, and fails to notify the Buyer thereof, the Buyer shall have the right to notify the Seller that the contract is breached, and proceed to exercise his rights as defined above.

If the Buyer delays giving notice of his intention to the Seller, and prior to receiving such notice, but after the expiration date of the contract, the Seller makes a shipment or shipments to apply, such shipment or shipments shall be deemed applicable on the contract, and must be accepted by the Buyer.

(b) Seller's Liability: If shipping instructions are not furnished to the Seller by the Buyer in accordance with Feed Trade Rule 11 hereof, the Seller may elect to treat the contract as breached, and notify the Buyer to that effect by wire or telephone.

Having given notice to the Buyer that he considers the contract breached, the Seller shall have the following rights, and shall, within twenty-four (24) hours after having given his original notice, notify the Buyer by wire or telephone, which one he elects to exercise:

(1) To cancel the contract or any unshipped portion thereof without penalty to the Buyer, or

(2) To resell the goods in the open market for Buyer's account, Buyer to pay Seller the loss incurred, or

(3) To retain the goods, and charge the Buyer with the difference between the contract price and the market price on the date of cancellation, and also in addition thereto such actual expenses as shall have been incurred.

Rule 15. Brokers: (a) A broker is one who is engaged for others, on a commission basis, in negotiating contracts relative to property, with the custody of which, actual or constructive, he has no concern.

A person is not a broker:

First. Who has possession and absolute control of merchandise shipped to him to sell and collect the proceeds. (Therefore, a commission merchant, to whom feed is consigned for sale, is not a broker.)

Second. Who receives a salary instead of a commission or brokerage.

Third. Who acts for one principal to the exclusion of all others.

(b) A broker has power to bind his principals only to the extent of his instructions, and the principals are not liable for any acts of the broker in excess of such instructions.

(c) A broker who in good faith or otherwise, exceeds his authority, is liable for resulting damages.

(d) A broker who negotiates a contract without disclosing his principal's name is responsible as principal until the real principal's name is given and accepted by the other party.

(e) A broker who in good faith negotiates a contract which is in accord with instructions from both his principals, who at the time of the negotiations advises each principal the name of the other, and who completes such negotiations in accordance with the rules and customs governing such transaction, thereby fulfills all his obligations and has no further liability to either of his principals, unless otherwise agreed. The contract so negotiated is valid and binding between the Buyer and Seller, the same as if it has been negotiated directly between them.

(f) Brokerage shall be credited when contract is accepted by principals to the transaction, unless otherwise specified.

Rule 16. Definitions of Feedstuffs: In the

Formula Feeds, Quantity and Value, 1947 & 1939

Note: These figures cover establishments engaged primarily in manufacturing prepared feeds for animals and fowls. Source: U.S. Bureau of the Census

(Money figures in millions; quantities in thousands of tons)

PRODUCT—	1947 Shipments Quantity	1947 Shipments Value*	1939 Production Quantity	1939 Production Value
PREPARED FEEDS, TOTAL	....	$2,215	....	n.a.
Poultry and livestock feed, total†	22,298	1,982	n.a.	n.a.
Grain (ground, rolled, chopped or crimped)	1,584	....	....	....
Scratch feeds	1,755	....	....	....
Chicken mashes (under 25% protein):				
Layer and breeder	4,318	....	....	....
Starter	960	....	....	....
Grower	1,173	....	....	....
Broiler	1,522	....	....	....
Turkey mash (under 25% protein)	547	....	....	....
Other poultry feeds (under 25% pr.)	612	....	....	....
Supplements and concentrates (over 25% protein)	832	....	....	....
Dairy feed (under 25% protein)	4,664	....	....	....
Dairy feed (over 25% protein)	608	....	....	....
Beef and range cattle feed	436	....	....	....
Sheep and goat feed	71	....	....	....
Pig and hog feed (under 25% prot.)	771	....	....	....
Pig and hog feed (over 25% prot.)	707	....	....	....
Horse and mule feed	534	....	....	....
Other livestock feeds‡	757	....	....	....
Poultry and livestock feeds, kind not specified	447	....	....	....
Dog and cat food, total	....	96	....	$33
Canned	214	38	251	23
Biscuit, pellets and meal	340	58	115	10
Miscellaneous feeds, total	....	86	....	n.a.
Mineral mixtures	200	18	308	8
Alfalfa meal, sun-cured	297	16	113	8
Alfalfa meal, dehydrated	723	34		
Other prepared feeds**	....	18	n.a.	n.a.
Prepared feeds, kind not specified††	....	51	....	....

*This table includes feeds made by all producers included in the Census of Manufactures.

†Not including byproduct feeds sold for direct consumption as such (tankage, gluten feed, beet pulp, etc.). Feeds mixed on farms or by small farm supply dealers also are not included.

‡Includes feed for rabbits, mink, foxes, laboratory animals, etc.

**Includes crushed oyster shells, egg shells, dried citrus pulp, and other miscellaneous prepared materials used as feeds or feed adjuncts.

††Includes total sales ($30 million) of small establishments classified in the "Prepared animal feeds" industry for which no breakdown of sales was tabulated.

Manufacturers of

Spring Wheat Flour

ST. CLOUD MILLING CO.

SALES OFFICE: 580 GRAIN EXCHANGE
MINNEAPOLIS
Telephone: AT. 4816

MILLS AT ST. CLOUD, MINNESOTA

Formula Feed Industry, Materials Consumed, 1947

Note: Dollars in millions; quantities in millions of bushels or thousands of tons. **Source: U.S. Bureau of the Census**

MATERIAL—	Quantity	Cost (Delivered)
GRAINS (IN BUSHELS):		
Barley	30.6	$ 48
Corn	138.4	392
Oats	112.6	124
Sorghum	16.6	33
Soybeans	7.2	23
Wheat	35.1	88
Other grains	2.0	4
Other materials (in tons):		
Corn meal	695	53
Gluten feed and meal	667	48
Hominy feed and meal	346	25
Brewers' and distillers' grains	462	30
Millfeeds and screenings	2,769	163
Cottonseed cake and meal	283	24
Soybean cake and meal	2,392	199
Linseed cake and meal	205	17
Other oilcake and meal	159	12
Meat scrap	580	60
Tankage	103	12
Fish meal and scrap	187	26
Dried milk and whey	91	13
Beet and citrus pulp	107	5
Alfalfa meal	1,019	55
Molasses	528	26
Bone meal and minerals	....	19

This table shows the total consumption of listed materials (including materials consumed in the manufacture of certain non-feed items) by establishments accounting for 94% of the total value of shipments of the "Prepared animal feeds" industry. Because that industry shipped only 89% of the total of all feeds shipped by manufacturers included in the Census and because this table includes materials consumed in the manufacture of certain non-feed items it is not directly comparable to "Formula Feeds, Quantity and Value" table.

absence of agreements to the contrary, definition of feedstuffs shall be the same as those adopted and promulgated by the Association of American Feed Control Officials.

Rule 17. Packing: (a) It shall be understood that all feedstuffs when sold in sacks shall be packed in new bags, unless otherwise agreed at time of trade.

(b) Shipments shall be in even weight packages and the weight of packages shall be net when packed, and two thousand (2,000) pounds net shall constitute a ton.

Rule 18. Labeling: Each feed container must bear a complete label, either stenciled upon the bag or on tag attached thereto, indicating the net weight, name brand, or trademark, minimum per cent of protein and fat, and maximum per cent of crude fiber, the specific name of each ingredient, expressed in its common or usual term, together with name and address of the manufacturer. Labels must be clear and distinct, in type of sufficient size to be easily read, and must conform in all cases to the uniform label adopted by the Association of American Feed Control Officials.

Rule 19. Weights: When feed is shipped in bulk, Seller's weights are final if sworn certificates of weight acceptable as a basis against the carrier are furnished by the Seller at time of shipment unless otherwise specified.

In case of shortage, and certificates herein above described are not furnished by the Seller, Buyer's sworn weight certificate acceptable as a basis of claim against the carrier, or railroad weights, shall be

Formula Feed Industry, Material Consumed, 1947

Note: These figures cover establishments engaged primarily in manufacturing formula feeds for animals and fowls. Shipments in these establishments amounted to 94% of the total value of shipments of the formula feed industry. 000's omitted. **Source: U.S. Bureau of the Census**

Division and state	Total cost	Barley Quantity (bu.)	Barley Value	Corn (except corn meal) Quantity (bu.)	Corn (except corn meal) Value	Oats Quantity (bu.)	Oats Value	Sorghum grain Quantity (bu.)	Sorghum grain Value	Soybeans Quantity (bu.)	Soybeans Value	Wheat Quantity (bu.)	Wheat Value	Other grains** Quantity (bu.)	Other grains** Value	Corn meal Quantity (tons)	Corn meal Value
U. S.	**$1,398,991**	**30,553**	**$48,463**	**137,503**	**$292,337**	**112,591**	**$123,981**	**16,637**	**$33,445**	**7,230**	**$22,686**	**41,384**	**$103,530**	**2,004**	**$4,263**	**695**	**$53,324**
New Eng.:																	
Maine	935	*	*	*	*	*	*	....	....	....	....	*	*	....	....	†	†
New Hamp.	6,534	†	*	*	*	*	*	....	....	....	....	128	322	....	....	*	*
Vermont ...	44,891	430	800	*	*	3,924	4,651	*	*	....	....	539	1,437	*	*	*	*
Mass.	19,766	197	352	1,190	2,718	1,341	1,654	*	*	....	....	368	998	*	*	*	*
Conn.	5,582	*	*	1,025	2,199	593	698	....	....	*	*	181	435	†	†	1.3	101
M. Atlantic:																	
N. York ...	235,876	2,855	4,618	22,589	47,607	24,432	27,599	*	*	130	381	3,099	8,133	439	862	117.0	9,065
N. Jersey .	21,367	219	385	2,379	5,375	2,449	2,908	*	*	*	*	1,192	3,383	†	†	16.7	1,313
Penn.	65,424	1,033	1,477	6,862	15,313	5,477	6,493	198	387	†	†	1,810	4,274	299	734	41.0	3,189
E. N. Cent.:																	
Ohio	111,831	1,098	1,748	11,941	25,332	7,239	8,070	245	698	*	*	1,241	3,087	166	189	22.9	1,567
Indiana ...	50,177	200	333	3,197	6,286	2,365	2,473	†	†	*	*	917	2,127	†	†	*	*
Illinois ...	94,601	1,187	2,063	7,204	15,137	4,898	5,106	198	373	38	104	721	1,826	*	*	*	*
Michigan ..	5,377	†	†	635	1,462	358	440	*	*	†	†	170	467	†	†	†	†
Wisconsin .	32,515	269	467	8,736	17,383	5,244	5,343	*	*	*	*	365	968	†	†	†	†
W. N. Cent.:																	
Minnesota ..	41,047	893	1,312	2,277	4,865	4,214	4,553	48	104	†	†	1,093	2,821	62	164	10.2	812
Iowa	39,180	*	*	2,825	5,985	4,238	4,357	219	500	*	*	563	1,420	†	†	5.2	345
Missouri ...	70,076	329	542	5,060	10,072	4,633	4,620	760	1,455	*	*	1,012	2,410	†	†	47.7	3,152
No. Dak. ..	193	*	*	†	†	†	†	*	*	....	....	*	*	*	*	....	....
So. Dak. ..	1,547	*	*	223	426	190	187	*	*	....	....	*	*	†	†	†	†
Nebraska ..	19,942	†	†	1,414	2,776	609	599	*	*	....	....	274	615	*	*	*	*
Kansas	21,632	130	222	2,129	4,469	1,359	1,366	766	1,408	†	†	122	268	....	....	†	†
S. Atlantic:																	
Delaware ..	19,252	†	†	*	*	*	*	....	....	....	....	78	187	....	....	*	*
Maryland .	16,770	232	407	2,239	4,704	1,374	1,626	126	311	....	....	370	769	*	*	*	*
Virginia ...	25,889	179	291	2,551	5,919	1,511	1,834	*	*	*	*	2,215	5,776	†	†	16.5	1,324
West Va. .	3,669	†	†	870	1,650	297	319	*	*	†	†	381	922	*	*	†	†
N. Carolina.	31,594	159	241	2,809	5,909	1,769	1,767	214	434	*	*	4,703	12,593	†	†	19.7	1,557
S. Carolina.	7,097	†	†	666	1,576	565	607	*	*	....	....	486	1,343	*	*	†	†
Georgia	13,450	†	†	1,933	4,291	1,065	1,104	56	114	....	....	702	1,813	†	†	3.0	237
Florida	9,883	†	†	877	2,042	1,357	1,520	*	*	....	....	173	455	....	....	5.4	419
E. S. Cent.:																	
Kentucky .	15,913	74	126	2,478	4,979	868	886	54	124	....	....	1,228	3,038	....	....	4.9	320
Tennessee .	51,764	621	966	4,814	9,722	5,453	5,934	373	700	*	*	916	2,457	†	†	*	*
Alabama ..	25,702	*	*	4,873	10,489	*	*	433	887	....	....	484	1,262	†	†	*	*
Miss.	14,100	189	314	2,750	6,297	1,717	1,853	138	225	....	....	246	595	*	*	†	†
W. S. Cent.:																	
Arkansas ..	15,249	110	179	3,092	6,191	2,421	2,533	198	379	....	....	100	249	*	*	5.8	475
Louisiana .	8,218	*	*	1,579	3,053	1,029	1,149	*	*	....	....	90	184	*	*	†	†
Oklahoma .	11,018	60	101	1,685	3,954	433	460	594	1,144	†	†	135	314	....	....	†	†
Texas	61,644	563	873	5,346	10,596	7,362	7,336	4,018	8,859	....	....	4,364	10,063	236	474	22.1	1,641
Mountain:																	
Montana ..	1,548	122	160	87	193	249	230	....	....	....	....	†	†	†	†	....	....
Idaho	1,541	*	*	*	*	*	*	....	....	....	....	*	*	*	*	....	....
Colorado ..	6,335	515	822	655	1,350	495	501	121	203	*	*	95	207	*	*	*	*
New Mex. .	†	*	*	*	*	†	†	*	*	....	....	*	*	....	....	†	†
Arizona ...	3,073	709	1,056	116	282	103	142	282	503	....	....	180	390	†	†	....	....
Utah	8,277	776	1,255	*	*	122	135	*	*	*	*	528	1,270	....	....	....	....
Nevada	131	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pacific:																	
Washington	16,648	776	1,414	1,045	2,649	1,743	2,148	†	†	*	*	1,459	3,728	50	102	†	†
Oregon	15,263	884	1,536	896	2,099	1,248	1,609	116	262	†	†	992	2,534	†	†	†	†
California .	126,359	15,208	23,510	10,129	23,238	3,327	3,997	4,278	7,739	*	*	7,579	18,128	160	244	3.1	261
Undistributed¶		§	536	893	6,327	13,759	4,730	5,214	3,102	6,636	7,062	22,201	78	172	653	1,488	352.6	27,646

*Withheld to avoid disclosing figures for individual companies.
†Value less than $100,000.
¶Undistributed figures (included in total cost for each state) are the totals of state figures withheld.
**Rye, buckwheat, etc.

the weight basis for use in settlement of such shortage claims.

Rule 20. Wheat By-Products Feeds: Durum wheat by-products shall not be deliverable on contracts for wheat by-product feeds unless so specified and/or mutually agreed to by both Buyer and Seller.

Rule 21. Registration: On sales of feedstuffs the Seller guarantees that the feedstuffs shall comply with the laws of the State into which it is sold, including registration and tax, if any, unless otherwise agreed at the time of sale.

Rule 22. Government Taxes on Freight Charges: Unless otherwise agreed at the time of purchase or sale, all Government taxes on freight charges shall be paid as follows: On all feed sold delivered, it shall be the duty of the Seller to pay all taxes imposed by the Government. It shall be the duty of the Buyer to pay the said taxes on all feed bought f.o.b. shipping point. It is the intention of this rule to impose the said taxes upon the party who, by the terms of the contract, assumes liability for the freight charges.

Rule 23. Alteration of Contract: The specifications of a contract cannot be altered or amended without the expressed consent of both the Buyer and Seller. (This abolishes the custom of "silence confirms.")

Rule 24. Arbitration: In cases of arbitration of disputes resulting from transactions in feedstuffs, where one or both parties to the dispute are members of trade associations or Exchanges that have adopted these rules, these rules shall define the rights of the parties and shall be the basis of award.

(b) The decision of an arbitration committee of this association shall be final except as provided in Section 9 of the Arbitration Rules.

U.S. Grain Sorghums Output, Acreage by States

Note: By calendar years, 000's omitted **Source: USDA**

State—	Acreage, harvested—Average 1939-48	1949	1950	Yield per acre, bu.—Average 1939-48	1949	1950	Production, bu.—Average 1939-48	1949	1950
Indiana	*2	1	2	*27.5	32.0	27.0	*45	32	54
Iowa	2	1	2	21.0	22.0	20.0	54	22	40
Missouri	52	23	23	19.7	22.0	20.5	1,038	506	472
North Dakota	5	4	7	14.5	12.0	13.0	69	48	91
South Dakota	108	12	86	11.7	10.0	11.0	1,177	120	946
Nebraska	158	65	147	16.6	24.5	26.0	2,248	1,592	3,822
Kansas	1,254	1,148	1,754	15.8	23.0	24.0	20,651	26,404	42,096
North Carolina	...	21	29	...	25.0	30.0	.....	525	870
Alabama	*27	43	44	*19.6	22.0	21.5	*569	946	946
Arkansas	9	14	33	15.6	21.5	21.0	154	301	693
Louisiana	1	1	1	16.4	19.5	19.0	20	20	19
Oklahoma	700	628	1,014	12.1	16.5	20.0	8,592	10,362	20,280
Texas	3,698	3,869	6,474	16.8	24.0	23.0	62,954	92,676	148,818
Colorado	173	234	103	13.2	18.0	12.0	2,311	4,212	1,236
New Mexico	290	395	420	13.0	22.0	19.0	2,890	8,684	7,985
Arizona	43	61	86	35.3	44.0	44.0	1,562	2,684	3,784
California	129	92	136	36.3	38.0	39.0	4,694	3,496	5,304
United States	6,552	6,612	10,361	16.4	23.1	22.9	108,836	152,630	237,456

*Short-time average.

DEFINITION OF OSNABURG

Osnaburg is a heavy, coarsely woven cloth made of short staple cotton fibers too short to be used in sheeting. Construction of goods is described in terms of the number of yards to the pound: 37" 4.00 yd. means 4 yd. of 37" material to the pound.

BALATA BELTING

Balata belting is a type of woven fiber belting impregnated with balata gum, the dried milky juice extract from the tropical bully tree, Mimusops globosa. This gum is also used in insulating telephone cables and in making golf balls.

Formula Feed Industry, Material Consumed, 1947

Note: These figures cover establishments engaged primarily in manufacturing formula feeds for animals and fowls. Shipments in these establishments amounted to 94% of the total value of shipments of the formula feed industry. 000's omitted. **Source: U.S. Bureau of the Census**

Division and state	Tankage—Quantity (tons)	Tankage—Value	Fish meal and scrap—Quantity (tons)	Fish meal and scrap—Value	Dr. skim milk and buttermilk—Quantity (lb.)	Dr. skim milk and buttermilk—Value	Dried whey—Quantity (lb.)	Dried whey—Value	Beet pulp (plain and molasses)—Quantity (tons)	Beet pulp (plain and molasses)—Value	Citrus pulp—Quantity (tons)	Citrus pulp—Value	Alfalfa meal—Quantity (tons)	Alfalfa meal—Value	Molasses—Quantity (tons)	Molasses—Value	Bone meal and minerals—Quantity (tons)	Bone meal and minerals—Value
U. S.	**103**	**$11,941**	**187**	**$25,647**	**62,510**	**$5,101**	**118,088**	**$8,123**	**68**	**$3,009**	**39**	**$1,871**	**1,019**	**$54,776**	**528**	**$25,690**	....	**$19,176**
New Eng.:																		
Maine	...	....	*	*	....	....	....	....	†	†	†	†	†	†	†	†	....	*
New Hamp.	...	....	1.6	165	....	....	†	†	†	†	†	†	4.4	233	*	*	....	*
Vermont	...	....	3.9	568	*	*	*	*	†	†	†	†	17.2	1,106	16.6	1,021	....	170
Mass.	...	....	6.2	655	†	†	*	*	†	†	†	†	9.5	625	*	*	....	†
Connecticut	...	....	†	†	†	†	*	*	†	†	†	†	2.4	156	†	†	....	†
M. Atlantic:																		
New York	*	*	30.3	3,892	5,004	427	27,655	1,773	8.0	503	†	†	106.6	6,338	104.4	5,146	....	3,842
New Jersey	†	†	3.8	476	*	*	2,152	151	†	†	....	....	8.6	595	4.0	204	....	†
Pennsylvania	2.2	206	7.4	855	7,337	631	4,453	329	1.6	116	†	†	51.0	2,852	13.5	714	....	340
E. N. Cent.:																		
Ohio	3.7	418	8.9	1,254	8,345	663	6,402	428	15.0	530	*	*	62.3	3,393	29.1	1,390	....	962
Indiana	6.7	815	9.0	1,282	1,640	167	3,017	241	†	†	*	*	33.3	1,970	12.5	736	....	764
Illinois	21.4	2,563	20.8	2,872	8,175	722	8,834	588	2.1	127	†	†	107.4	6,859	32.0	1,496	....	3,059
Michigan	†	†	†	†	†	†	†	†	†	†	....	....	3.3	179	†	†	....	†
Wisconsin	†	†	†	†	†	†	†	†	†	†	†	†	9.5	474	4.0	200	....	560
W. N. Cent.:																		
Minnesota	9.9	1,118	7.5	1,129	2,870	225	1,782	146	3.2	183	†	†	27.5	1,491	12.4	547	....	546
Iowa	14.3	1,701	3.5	517	3,398	235	1,362	100	*	*	†	†	25.8	1,420	8.3	471	....	1,889
Missouri	8.5	1,136	5.2	794	†	†	*	*	*	*	*	*	59.3	2,836	40.0	2,000	....	1,086
No. Dakota	....	....	†	†	*	*	....	....	....	....	....	....	†	†	†	†	....	†
So. Dakota	†	†	†	†	*	*	†	†	....	....	....	....	†	†	†	†	....	*
Nebraska	5.8	671	2.1	243	1,229	117	†	†	†	†	†	†	33.8	1,604	9.2	465	....	719
Kansas	*	*	2.5	391	†	†	1,735	136	†	†	†	†	44.5	2,414	10.8	559	....	397
S. Atlantic:																		
Delaware	...	....	*	*	†	†	*	*	†	†	†	†	*	*	*	*	....	*
Maryland	1.3	178	1.6	213	†	†	1,688	119	†	†	†	†	7.5	470	4.0	204	....	†
Virginia	†	†	2.2	283	†	†	*	*	†	†	†	†	11.6	698	6.7	347	....	178
W. Virginia	†	†	†	†	*	*	....	....	†	†	....	....	†	†	†	†	....	*
No. Carolina	2.2	229	6.5	834	2,106	138	2,479	181	†	†	†	†	12.4	780	7.3	382	....	231
So. Carolina	...	....	2.0	243	*	*	*	*	†	†	†	†	5.1	301	2.1	162	....	*
Georgia	†	†	†	†	†	†	†	†	†	†	†	†	9.4	574	7.1	367	....	200
Florida	†	†	1.1	132	*	*	†	†	†	6.3	278	7.2	407	9.6	408	....	137
E. S. Cent.:																		
Kentucky	†	†	†	†	†	†	*	*	....	....	....	....	11.2	507	8.9	391	....	*
Tennessee	3.1	277	5.0	584	†	†	2,541	172	1.6	106	2.0	84	44.7	2,129	37.4	1,861	....	662
Alabama	†	†	†	†	*	*	*	*	†	†	....	....	12.5	716	9.8	387	....	258
Mississippi	†	†	†	†	†	†	*	*	†	†	†	†	14.2	623	10.5	426	....	149
W. S. Cent.:																		
Arkansas	†	†	†	†	*	*	†	†	†	†	†	†	9.6	501	8.3	423	....	260
Louisiana	....	....	†	†	*	*	*	*	†	†	†	†	6.3	352	5.2	267	....	*
Oklahoma	†	†	....	....	*	*	*	*	†	†	....	....	8.1	432	3.0	166	....	*
Texas	3.6	383	3.9	556	2,484	195	3,440	231	†	†	5.6	257	44.5	2,198	24.6	1,706	....	686
Mountain:																		
Montana	†	†	†	†	*	*	*	*	†	†	....	....	*	*	*	*	....	*
Idaho	....	....	†	†	*	*	*	*	†	†	....	....	*	*	*	*	....	*
Colorado	†	†	†	†	†	†	*	*	†	†	....	....	6.1	244	5.4	266	....	*
New Mexico	†	†	....	....	....	....	†	†	....	....	†	†	....	....	†	†	....	†
Arizona	....	....	†	†	*	*	*	*	†	†	†	†	†	†	†	†	....	*
Utah	†	†	2.5	413	†	†	*	*	†	†	....	....	12.4	440	*	*	....	†
Nevada	....	....	....	....	....	....	....	....	....	....	....	....	*	*	....	....	....	....
Pacific:																		
Washington	†	†	2.5	254	1,267	123	†	†	2.0	121	....	....	8.5	485	*	*	....	†
Oregon	†	†	2.9	439	1,691	143	1,984	130	†	†	†	†	14.5	710	2.1	126	....	102
California	*	*	37.2	5,708	4,055	391	12,724	830	27.8	1,505	6.8	315	139.1	6,310	21.2	899	....	1,186
Undistributed‡	20	2,246	7	894	12,809	1,010	34,662	2,569	7	418	18	937	28	1,349	47	2,063	....	356

*Withheld to avoid disclosing figures for individual companies.
†Value less than $100,000.
‡Undistributed figures (included in total cost for each state) are the totals of state figures withheld.

Definitions of Principal Grain By-Product Feeds

Following are definitions for the principal grain by-products feeds as approved by the Association of American Feed Control Officials:

BARLEY PRODUCTS

Barley Feed is the entire by-product resulting from the manufacture of pearl barley from clean barley.

Barley Hulls are the product consisting of the outer covering of the barley.

Barley Mixed Feed is the entire offal from the milling of barley flour from clean barley, and is composed of barley hulls and barley middlings.

Ground Barley is the entire product obtained by grinding clean, sound barley, containing not less than 90% of pure barley and not more than 10% of other grains, weed seeds and other foreign material, and not more than 6% crude fiber; provided, that no portion of this stated 10% of other grains, weed seeds or other foreign material shall be intentionally added.

Mixed Feed Barley is the entire product obtained by grinding country run barley containing not less than 75% of pure barley and not more than 25% of other grains, weed seeds and other foreign material; provided, that no portion of this stated 25% of other grains, weed seeds or foreign material shall be intentionally added. The ingredients must be stated as barley, other grains, weed seeds and foreign material.

Rolled or Crimped Barley is heavy barley that has been rolled to desired thickness after tempering so as not to crumble. It shall contain not less than 90% pure barley and not more than 10% weed seeds or other foreign materials and not more than 6% crude fiber.

BUCKWHEAT PRODUCTS

Buckwheat Feed is a mixture of buckwheat middlings and buckwheat hulls. It must not contain more than 30% of crude fiber.

Buckwheat Middlings is that portion of the buckwheat grain immediately under the hull after separation of the flour. It shall contain no more hulls than is obtained in the usual process of buckwheat milling, and must not contain more than 10% of crude fiber.

CORN PRODUCTS

Ear Corn Chops with Husks is corn, cob and husks chopped, with no greater proportion of cob and husks than occurs in the ear corn in its natural state.

Flaked Corn is the product obtained by running cracked corn which has been aspirated and properly tempered, over smooth flaking rolls and subsequently dried and cooled.

Corn Germ Cake consists of corn germ with other parts of the corn kernel from which part of the oil has been pressed, and is the product obtained in the dry milling process of manufacture of corn meal, corn grits, hominy feed and other corn products.

Corn Germ Meal is ground corn germ cake.

Corn Gluten Feed is that part of commercial shelled corn that remains after the extraction of the larger part of the starch and germ by the processes employed in the wet milling manufacture of cornstarch or syrup. It may or it may not contain one or more of the following: corn solubles, corn oil meal.

Corn Gluten Meal is that part of the commercial shelled corn that remains after the extraction of the larger part of the starch and germ, and the separation of the bran by the processes employed in the wet milling manufacture of cornstarch or syrup. It may or it may not contain one or more of the following: corn solubles, corn oil meal.

Corn Oil Cake consists of the corn germ from which part of the oil has been pressed and is the product obtained in the wet milling process of manufacture of cornstarch, corn syrup and other corn products.

Corn Oil Meal is ground corn oil cake.

Corn Chop, Ground Corn or Cracked Corn is the entire product made by grinding, cutting or chopping the grains of sound Indian corn, and may be fine, medium or coarse. It must not contain more than 4% of foreign material.

Screened Corn Chop, Screened Ground Corn, or Screened Cracked Corn is the coarse portion of corn chop, ground corn or cracked corn from which most of the fine particles have been removed. It must not contain more than 4% of foreign material

Formula Feed Industry, Material Consumed, 1947

Note: These figures cover establishments engaged primarily in manufacturing formula feeds for animals and fowls. Shipments in these establishments amounted to 94% of the total value of shipments of the formula feed industry. 000's omitted.

Source: U.S. Bureau of the Census

Division and state	Corn gluten feed & meal		Hominy feed & meal		Brewers' and distillers' spent grains		Millfeeds and screenings		Cottonseed cake & meal		Soybean cake & meal		Linseed cake & meal		Other oil cake & meal		Meat scrap	
	Quantity (tons)	Value	Quantity (tons)	Value	Quantity (tons)	Value	Quantity (tons)	Value	Quantity (tons)	Value	Quantity (tons)	Value	Quantity (tons)	Value	Quantity (tons)	Value	Quantity (tons)	Value
U. S.	**667**	**$46,184**	**346**	**$25,424**	**462**	**$29,605**	**2,769**	**$163,387**	**287**	**$24,147**	**2,392**	**$199,258**	**205**	**$16,722**	**159**	**$12,091**	**560**	**$39,943**
New Eng.:																		
Maine	*	*	†	†	†	†	*	*	†	†	†	†	†	†	†	†	†	†
New Hamp.	4.1	289	*	*	*	*	18.1	1,128	†	†	6.2	490	†	†	....	....	2.8	237
Vermont	29.9	2,218	28.0	2,069	18.3	1,275	107.7	7,284	1.7	155	44.5	3,908	*	*	*	*	12.1	1,385
Massachusetts	6.4	506	5.8	442	3.8	271	51.0	3,554	†	†	24.3	2,169	*	*	†	†	6.8	792
Connecticut	3.3	242	2.0	157	†	†	7.9	313	†	†	6.4	550	†	†	†	†	3.9	410
M. Atlantic:																		
New York	205.8	13,760	117.9	8,831	144.9	9,235	506.7	29,633	11.9	1,025	417.9	32,847	51.5	4,257	26.3	2,003	67.9	7,095
New Jersey	4.2	318	†	†	8.8	661	27.7	1,851	†	†	19.9	1,828	1.6	147	†	†	13.1	1,307
Pennsylvania	40.7	3,075	11.9	891	21.2	1,346	120.0	6,061	9.3	797	120.4	10,730	8.9	735	10.7	925	29.5	2,927
E. N. Cent.:																		
Ohio	79.8	5,183	38.9	2,663	55.0	3,274	281.8	14,890	25.5	2,172	270.1	22,313	11.5	968	6.3	402	42.3	4,387
Indiana	15.0	1,016	6.4	477	10.6	718	69.3	4,217	7.7	708	188.4	15,347	4.2	388	1.9	133	26.9	2,862
Illinois	51.0	3,292	36.1	2,895	35.2	*2,121	153.0	8,810	12.6	1,085	272.3	21,646	12.5	1,033	11.0	938	70.7	8,200
Michigan	3.6	256	1.7	121	3.0	140	7.6	494	†	†	11.0	910	†	†	†	†	4.7	485
Wisconsin	7.9	547	2.8	152	3.5	229	28.5	1,637	†	†	28.4	2,365	5.0	393	†	†	12.5	1,434
W. N. Cent.:																		
Minnesota	13.8	1,105	†	†	1.8	116	131.8	7,398	3.2	268	104.1	8,607	16.3	1,378	2.1	166	17.9	1,988
Iowa	5.6	441	†	†	2.9	214	77.2	5,334	6.7	586	105.7	8,963	19.2	1,370	2.8	248	26.2	2,777
Missouri	39.0	2,718	3.8	240	*	*	161.5	9,748	28.2	2,452	113.4	9,404	5.5	441	4.4	290	28.1	3,146
No. Dakota	†	†	†	....	....	....	....	....	*	*	†	†	†	†	†	†	†	†
So. Dakota	†	†	....	....	†	†	4.2	271	†	†	4.0	369	†	†	†	†	1.2	133
Nebraska	4.4	301	†	†	5.8	423	34.4	1,990	7.6	725	67.5	5,417	9.6	744	1.2	100	12.7	1,348
Kansas	6.8	451	*	*	3.0	175	71.2	4,271	2.6	220	38.7	3,326	1.5	127	1.4	110	7.2	780
S. Atlantic:																		
Delaware	*	*	*	*	†	†	*	*	†	†	*	*	†	†	†	†	*	*
Maryland	13.6	1,093	*	*	11.8	594	29.9	1,935	5.8	554	26.8	2,255	1.3	113	3.6	236	5.1	517
Virginia	9.3	633	1.8	140	11.2	784	54.1	3,272	2.8	238	34.2	2,900	†	†	7.1	466	10.0	1,040
W. Virginia	†	†	†	†	†	†	4.2	273	†	†	2.9	259	*	*	†	†	†	†
N. Carolina	13.5	968	4.2	341	11.7	796	44.0	3,011	10.8	870	28.1	2,534	†	†	5.1	408	8.2	853
S. Carolina	*	*	*	*	2.7	147	*	*	2.4	186	8.1	619	†	†	*	*	1.4	150
Georgia	5.1	373	4.1	349	4.1	281	24.0	1,450	9.9	810	6.3	536	†	†	5.7	425	4.2	446
Florida	7.0	509	2.5	186	6.2	455	18.7	1,062	6.8	522	8.2	721	†	†	4.6	369	1.0	111
E. S. Cent.:																		
Kentucky	3.9	274	6.2	417	18.5	1,090	32.5	2,133	2.8	234	26.1	2,096	†	†	†	†	1.9	184
Tennessee	26.3	1,733	13.8	915	18.3	1,119	126.9	7,348	20.3	1,800	87.1	6,687	2.6	207	3.7	291	12.7	1,324
Alabama	6.2	417	*	*	†	†	32.5	2,105	14.3	1,160	*	*	†	†	†	†	*	*
Mississippi	4.2	267	*	*	*	*	25.1	1,493	6.6	543	9.4	734	†	†	†	†	1.1	130
W. S. Cent.:																		
Arkansas	5.1	367	*	*	†	†	33.2	1,702	7.7	612	8.2	698	†	†	†	†	1.7	187
Louisiana	*	*	†	†	†	153	11.6	786	5.2	437	6.3	603	†	†	†	†	†	†
Oklahoma	1.4	106	†	†	†	†	34.2	2,172	2.9	268	12.2	1,122	†	†	†	†	4.7	522
Texas	23.2	1,679	6.5	427	8.4	596	95.4	5,397	35.5	3,054	55.1	4,719	5.7	519	10.7	773	20.0	1,978
Mountain:																		
Montana	†	†	†	†	†	†	*	*	†	†	*	*	†	†	†	†	†	†
Idaho	†	†	....	....	†	†	*	*	†	†	*	*	†	†	....	....	....	†
Colorado	*	*	....	....	†	†	6.9	574	2.7	235	10.4	851	1.2	105	†	†	2.1	211
New Mexico	...	....	....	....	....	....	†	†	†	†	†	†	....	....	....	....	†	†
Arizona	†	†	....	....	....	....	*	*	2.1	195	1.0	103	†	†	†	†	1.5	160
Utah	...	....	....	....	†	†	20.6	1,170	†	†	5.9	582	†	†	†	†	9.2	960
Nevada	...	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pacific:																		
Washington	†	†	*	*	†	†	30.2	1,483	*	*	15.0	1,427	2.1	.68	†	†	4.4	428
Oregon	†	†	*	*	†	†	50.0	2,618	†	†	15.6	1,455	1.4	123	3.1	211	8.7	922
California	2.0	172	*	*	3.3	223	175.8	10,905	24.8	1,955	105.0	9,414	20.6	1,478	40.7	3,054	59.8	6,326
Undistributed‡	25	1,884	52	3,711	48	3,510	60	3,611	*	*	77	6,754	23	2,028	7	543	16	1,797

*Withheld to avoid disclosing figures for individual companies.

†Value less than $100,000.

‡Undistributed figures (included in total cost for each state) are the totals of state figures withheld.

Corn Meal (Feeding) is finely ground, unbolted corn.

Corn Bran is the outer coating of the corn kernel, with little or none of the starchy part or germ.

Corn Feed Meal is the fine siftings obtained in the manufacture of screened corn chop, screened ground corn or screened cracked corn, with or without its aspiration products added.

Corn Grits, Hominy Grits is the product consisting of the fine or medium-sized, hard, flinty portions or sound Indian corn containing little or none of the bran or germ.

Corn Screenings is the product consisting of the small, light grains of corn, parts of grains of corn or other cereals, and other materials having feeding value, separately or together, obtained by screening shelled corn, excluding sand, dirt and other similar inert materials.

Ear Corn Chops is corn and cob chopped, without the husk, with no greater proportion of cob than occurs in the ear corn in its natural state.

Maltose Process Corn Gluten Feed is the dried residue from degermed corn, after removal of the starch in the manufacture of malt syrup.

Hominy Feed is a mixture of corn bran, corn germ and a part of the starchy portion of either white or yellow corn kernels or mixture thereof as produced in the manufacture of pearl hominy, hominy grits or table meal, and shall contain not less than 5% of crude fat. If prefixed with the words "white" or "yellow," the product must correspond thereto.

OAT PRODUCTS

Oat Hulls is the product consisting of the outer covering of the oat.

Oat Middlings is the product consisting of the floury portions of the oat groat obtained in the milling of rolled oats.

Oat Shorts is the product consisting of the covering of the oat grain lying immediately inside the hull, being a fuzzy material carrying with it considerable portions of the fine floury part of the groat obtained in the milling of rolled oats.

Clipped Oat By-product is the by-product obtained in the manufacture of clipped oats. It may contain the light, chaffy material broken from the end of the hulls, empty hulls, light, immature oats and dust. It must not contain an excessive amount of oat hulls.

Oat Chop, Ground Oats, Pulverized Oats, Crushed Oats or Crimped Oats consist of the entire product made by chopping, cutting, grinding, crushing or crimping whole oats.

Oat Groats are the kernels produced from cleaned and dried oats in the process of manufacturing oatmeal.

Hulled Oats, Unclied Oat Groats are the kernels produced from the undried grain in the process of hulling oats.

Feeding Oatmeal is a product obtained in the manufacture of rolled oat groats or rolled oats and consists of broken rolled oat groats, oat groat chips, and floury portions of the oat groats, with only such quantity of finely ground oat hulls as is unavoidable in the usual process of commercial milling. It must not contain more than 4% of crude fiber.

Oat Millfeed (Oat Hulls, Oat Shorts and Oat Middlings) is the entire by-product produced in the manufacture of oat groats and consists of oat hulls, oat shorts and oat middlings. It shall contain not more than 30% crude fiber. If used in a mixed feed, it shall be called Oat Millfeed (Oat Hulls, Oat Shorts and Oat Middlings).

Cut Oat Groats, Cracked Oat Groats, or Ground Oat Groats is the product produced by cutting, cracking or grinding oat groats.

Oat Huller Feed is the by-product obtained in the newer methods of manufacturing oat groats and consists primarily of oat hulls. It shall contain not more than 34% crude fiber.

RYE PRODUCTS

Rye Bran is the coarse outer covering of the rye kernel as separated from the cleaned and scoured rye.

Rye Feed, a by-product obtained in the usual process of the milling of rye flour from cleaned and scoured rye, consisting principally of the mill run of the outer covering of the rye kernel and the rye germ, with small quantities of rye flour and aleurone, and must not contain more than 9.5% of crude fiber.

Rye Flour Middlings consist of rye feed, rye red dog and rye flour combined in the proportions obtained in the milling of rye flour, and must not contain more than 5% of crude fiber.

Rye Low Grade Feed Flour consists principally of rye flour and small quantities of aleurone and fine rye bran particles, and must not contain more than 1.5% crude fiber.

Rye Middlings consist of rye feed and rye red dog combined in the proportions obtained in the usual process of milling rye flour, and must not contain more than 8.5% of crude fiber.

Rye Red Dog, a by-product obtained in the usual process of the milling of rye flour, consisting principally of aleurone with small quantities of rye flour and fine rye bran particles, and must not contain more than 3.5% crude fiber.

SCREENINGS

Scourings consist of such portions of the cuticle, brush, white caps, dust, smut and other materials as are separated from the grain in the usual commercial process of scouring.

Screenings consist of a mixture of mill or elevator run materials or a combination of varying amounts of materials obtained in the process of cleaning grain or seed, either or both, such as inferior, light or broken grain or seed, weed seeds, hulls, chaff, joints, straw, elevator dust, floor sweepings. They must be relatively free of unpalatable or injurious weed seeds, sand and dirt. They must not contain more than 14% of fiber or more than 6.50% of ash. If they bear a name descriptive of their kind or origin, they must correspond thereto.

Screenings, Grain, consist of inferior, light or broken grain or seed obtained in the process of cleaning grain or seed or recleaning screenings, either or both. They must be relatively free of weed seeds, chaff, straw, hulls, joints, sand and dirt, and other foreign materials. If they bear a name descriptive of their kind or origin, they must correspond thereto.

Screenings Waste or Screenings Refuse is a mixture of materials or combination of varying amounts of materials obtained in the process of cleaning grain or seed, either or both, or recleaning screenings, such as weed seeds which may be unpalatable or injurious, chaff, hulls, straw, sticks, joints, elevator dust, floor sweepings, sand and dirt.

Screenings Oil Feed is the ground product obtained after extraction of part of the oil by crushing, cooking and hydraulic or mechanical pressure, or by crushing, heating and the use of solvents, from oleaginous seeds and other materials having feeding value separated in cleaning grain or other seeds. It must be designated and sold according to its protein content.

WHEAT PRODUCTS

Wheat Bran is the coarse outer covering of the wheat kernel as separated from cleaned and scoured wheat in the usual process of commercial milling.

Wheat Mixed Feed consists of the coarse outer covering of the wheat kernel, fine particles of wheat bran, wheat germ and wheat flour, and the offal from the "tail of the mill." This product shall be obtained in the usual process of commercial milling and shall contain not more than 9.5% of crude fiber.

Wheat Standard Middlings consists of fine particles of wheat bran, wheat germ, wheat flour and some of the offal from the "tail of the mill." This product shall be obtained in the usual process of commercial milling and shall contain not more than 9.5% of crude fiber.

Wheat Brown Shorts consists of fine particles of wheat bran, wheat germ, and wheat flour and some of the offal from the "tail of the mill." This product shall be obtained in the usual process of commercial milling and shall contain not more than 7.5% of crude fiber.

Wheat Gray Shorts, Wheat Gray Middlings, or Wheat Flour Middlings consists of fine particles of wheat bran, wheat germ, wheat flour, and the offal from the "tail of the mill." The product shall be obtained in the usual process of commercial milling and shall contain not more than 6% of crude fiber.

Wheat Red Dog, Wheat White Shorts or Wheat White Middlings consists of the offal from the "tail of the mill" together with some fine particles of wheat bran, wheat germ and wheat flour. This product shall be obtained in the usual process of commercial milling and shall contain not more than 4.0% of crude fiber.

Wheat Feed Flour consists principally of wheat flour together with fine particles of wheat bran, wheat germ and the offal from the "tail of the mill." This product shall be obtained in the usual process of commercial milling and shall contain not more than 1.5% of crude fiber.

Wheat Germ Meal consists chiefly of wheat germ together with some bran and middlings or shorts. It shall contain not less than 25% of protein and 9% of fat.

Wheat Germ Oil Cake is the cake secured in the removal of part of the oil from wheat germ meal and shall contain not less than 29% of protein.

Wheat Germ Oil Meal is ground wheat germ oil cake.

U.S. Stocks of Principal Feed Grains

Note: In bushels, 000's omitted. **Source: USDA**

Grain and position—	Jan. 1, 1949	Jan. 1, 1950	Oct. 1, 1950	Jan. 1, 1951
Corn—				
On farms*	2,547,912	2,405,778	486,150	2,160,548
Terminals†	50,330	51,688	40,127	59,365
Commodity Credit Corp.‡	.....	248,154	253,316	315,820
Interior mills, elevators and warehouses*¶	43,088	100,609	80,877	128,557
Total	2,641,330	2,806,229	860,470	2,664,290
Oats—				
On farms*	928,377	824,510	1,168,742	907,660
Terminals†	11,434	19,029	22,920	17,698
Commodity Credit Corp.‡	.....	.....	64	136
Interior mills, elevators and warehouses*¶	34,733	37,449	55,490	43,521
Total	974,544	880,988	1,246,516	969,015
Barley—				
On farms*	156,357	106,494	180,508	139,338
Terminals†	16,457	33,778	33,429	32,625
Commodity Credit Corp.‡	.....	2,441	3,613	3,618
Interior mills, elevators and warehouses*¶	58,031	50,182	84,316	67,616
Total	230,845	192,895	301,866	243,197
Sorghum grain—				
On farms*	52,058	59,967	4,897	78,725
Terminals†	16,367	18,567	13,124	24,367
Commodity Credit Corp.‡	.....	.....	2,580	2,264
Interior mills, elevators and warehouses*¶	17,868	49,033	32,852	102,468
Total	86,294	127,567	59,453	208,824

*Estimates of Crop Reporting Board. †Commercial stocks reported by Grain Branch, PMA, at 47 terminal cities. ‡Owned by CCC and stored in bins or other storages owned or controlled by CCC, and in Canada. Other CCC-owned grain is included in the estimates by positions. ¶All off-farm storages not otherwise designated for each grain.

Soybean Prices at Chicago

Source: Chicago Board of Trade.
High and low for No. 2 yellow:

	1949	1950
January	$2.46¼ @2.61¾	$2.28½ @2.34
February	2.22¼ @2.39	2.28½ @2.42¼
March	2.19 @2.35	2.43 @2.55
April	2.25½ @2.29½	2.79 @2.93
May	2.20⅝ @2.40½	2.33½ @3.09⅝
June	2.23 @2.41¼	2.98 @3.15½
July	2.41¼ @2.83	2.41¼ @2.83
August	*... @ ...	*... @ ...
September ..	2.29 @2.29	*... @ ...
October	2.13¼ @2.35½	2.19½ @2.64½
November ..	2.12½ @2.30	2.59¼ @2.93¾
December ..	2.28⅜ @2.83	2.93 @3.17
Range	$2.12½ @2.83	$2.19½ @3.17

*No sales.

1951 FEEDSTUFFS ANALYSIS TABLE

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This chart is published to assist feed manufacturers and students of nutrition in formulating feeds. The values given are not average, but carry a "margin of safety" so that the feed should contain at least as much protein, fat, minerals and vitamins, and not as much fiber as the final calculations show.

Protein %	Fat %	Fiber %	Calcium %	Phosphorus %	Feedstuff—	Vit. A U.S.P. units per lb.	Milligrams, per lb. Riboflavin	Niacin	Pantothenic acid	Choline
20	2.0	18.0	1.70	.22	Alfalfa leaf meal (dehydrated)	90,000	8.00	20.0	17.0	450
20	2.0	18.0	1.70	.22	Alfalfa leaf meal (suncured)	20,000	7.00	18.0	16.0	400
17	1.5	27.0	1.50	.20	Alfalfa meal (dehydrated)	50,000	7.00	16.0	14.0	400
15	1.5	30.0	1.50	.20	Alfalfa meal (dehydrated)	40,000	7.00	12.0	12.0	400
13	1.5	33.0	1.20	.20	Alfalfa meal (either type)	15,000	5.00	9.0	10.0	400
11.5	2.0	6.0	.05	.30	Barley	....	0.70	24.0	3.0	450
9	2.0	6.0	.06	.30	Barley (Pacific Coast)	....	0.50	20.0	3.0	450
20	1.0	4.0	.10	.40	Beans (navy call)	....	1.00	12.0	.5	....
8	.5	20.0	.65	.05	Beet pulp, dried	....	0.30	8.0	.5	....
80	1.0	1.0	.30	.25	Blood meal	....	1.40	18.0	2.3	....
24	6.0	15.0	.20	.45	Brewers dried grains	....	0.22	....	....	....
45	.5	2.0	.05	1.00	Brewers dried yeast	....	13.00	225.0	50.0	1,500
11	2.0	10.0	.04	.30	Buckwheat	....	0.20	20.0	....	....
32	5.0	9.0	1.30	1.00	Buttermilk, dried	....	12.00	7.5	19.0	590
6	2.5	15.0	2.00	.10	Citrus pulp, dried	....	1.00	9.0	6.0	....
20	6.0	11.0	.20	.60	Coconut oil meal (copra meal)	....	1.80	13.0	3.0	500
8.3	3.8	2.5	.02	.25	Corn (yellow)	2,500	0.50	8.5	2.0	200
7	3.0	8.0	.01	.25	Corn and cob meal (yellow)	1,500	....	....	....	....
2.3	1.0	30.0	...	...	Corn cobs	....	....	....	....	....
19	7.0	9.0	...	....	Corn germ meal	....	2.00	15.0	5.0	800
23	1.5	8.5	.20	.70	Corn gluten feed	2,000	0.80	30.0	4.0	500
41	1.5	4.0	.10	.30	Corn gluten meal	12,000	0.70	20.0	5.0	200
20	1.0	10.0	.10	.30	Corn oil meal (solvent)	....	2.00	....	....	....
36	4.5	16.0	.20	1.20	Cottonseed oil meal	....	1.50	20.0	6.5	1,200
41	5.0	13.0	.20	1.20	Cottonseed oil meal	....	1.50	20.0	6.5	1,200
41	1.5	13.0	.20	1.20	Cottonseed oil meal (solvent)	....	2.00	20.0	6.5	1,200
25	9.0	12.0	.05	.25	Distillers dried grains (light)	1,000	1.00	15.0	2.0	600
25	7.0	8.0	.15	.50	Distillers dried grains, with solubles	1,000	3.00	30.0	5.0	1,500
25	4.0	4.0	.30	1.20	Distillers dried solubles	1,000	5.00	60.0	12.0	2,500
66	8.0	1.5	4.50	3.00	Fish meal, herring	....	2.00	....	....	....
60	7.0	1.0	5.00	3.20	Fish meal, menhaden	....	2.00	25.0	4.0	1,400
55	6.0	1.5	7.00	3.50	Fish meal, red fish	....	3.00	28.0	2.5	1,400
65	6.0	1.0	5.00	3.20	Fish meal, sardine	....	2.50	30.0	3.0	1,500
63	4.5	1.0	6.50	3.50	Fish meal, white	....	4.00	30.0	3.0	....
30	4.0	0.0	.10	.80	Fish solubles, 50% solids	....	6.00	120.0	18.0	1,000
11	5.0	5.0	.02	.55	Hominy feed (yellow)	1,000	1.80	18.0	3.5	400
11	2.5	2.5	.02	.30	Kafir corn	....	0.50	18.0	5.0	200
10	2.0	7.0	.07	.20	Kafir head chops	....	....	....	....	....
10	2.0	27.0	1.00	.20	Lespedeza hay meal	....	....	....	....	....
32	3.5	8.0	.35	.75	Linseed oil meal (old process)	....	1.70	15.0	5.0	800
34	0.5	8.0	.35	.75	Linseed oil meal (solvent)	....	1.70	15.0	5.0	800
24	1.5	15.0	.20	.70	Malt sprouts, dried	....	2.30	....	....	....
45	9.0	2.5	11.00	5.50	Meat and bone scraps	....	2.40	20.0	2.0	800
50	9.0	2.5	10.00	5.00	Meat and bone scraps	....	2.50	21.0	2.0	800
55	9.0	2.5	8.00	4.00	Meat scraps	....	2.60	23.0	2.0	800
11	2.5	2.5	.02	.33	Milo maize	....	0.40	13.0	4.0	200
10	2.0	7.0	.04	.20	Milo head chops	....	.80	....	....	....
7	0.0	0.0	.05	.02	Molasses, beet	....	....	20.0	....	....
3	0.0	0.0	.50	.05	Molasses, cane	....	1.00	20.0	17.0	300
0.5	0.0	0.0	.50	.05	Molasses, corn (hydrol)	....	....	....	....	....
12	3.5	12.0	.10	.36	Oats	....	0.30	6.5	5.0	425
9	4.5	12.0	.10	.35	Oats (Pacific Coast)	....	....	....	....	....
15.5	4.5	2.5	.10	.45	Oats (hulled), oat groats	....	0.45	7.5	5.0	550
15.5	4.5	2.5	.10	.45	Oats, feeding rolled	....	0.45	7.5	5.0	550
2	.5	36.5	...	...	Oat hulls	....	....	....	....	....
3.5	1.0	34.0	.25	.20	Oat, millfeed	....	....	....	....	....
45	6.0	14.0	.20	.55	Peanut oil meal (expeller)	....	2.40	77.5	24.0	800
50	1.0	11.0	.20	.55	Peanut oil meal (solvent)	....	2.40	77.5	24.0	800
11.5	12.0	13.0	.10	1.35	Rice bran	....	1.40	129.0	10.5	....
12	10.0	4.0	.04	1.10	Rice polishings	....	3.90	325.0	4.5	460
12	1.7	2.5	.01	.30	Rye	....	0.70	7.0	4.0	....
40	7.0	6.5	2.00	1.50	Sesame oil meal	....	1.50	....	....	....
40	2.0	11.0	7.00	1.25	Shrimp meal	....	....	....	....	....
34	.5	0.0	1.30	1.00	Skim milk, dried	....	9.00	5.0	15.0	500
37	18.0	5.0	.25	.60	Soybeans	....	1.20	10.0	5.0	1,300
42	3.5	6.0	.25	.60	Soybean oil meal (expeller)	....	1.40	12.0	4.5	1,200
45	.5	7.0	.25	.65	Soybean oil meal (solvent)	....	1.30	13.0	5.0	1,250
50	.5	3.0	.25	.65	Soybean oil meal	....	1.2	14.0	6.0	1,350
5	.8	4.0	.27	.24	Sweet potato meal (dehydrated)	70,000	0.95	11.8	....	....
60	8.0	3.0	6.00	3.00	Tankage	....	1.00	18.0	1.1	1,000
11.5	1.8	3.0	.05	.40	Wheat, hard	....	0.55	24.0	4.5	450
10	1.8	3.0	.05	.40	Wheat, soft western	....	0.53	26.0	4.5	450
14	3.5	11.0	.10	1.20	Wheat bran	....	1.00	60.0	12.0	460
16	3.5	6.5	.05	.70	Wheat, flour middlings, gray shorts	....	0.60	40.0	4.5	450
26	8.0	2.5	.01	1.00	Wheat, germ meal	....	2.20	23.5	3.5	1,500
15	3.5	9.0	.10	.90	Wheat, mixed feed	....	0.70	50.0	6.0	450
16	3.5	3.0	.10	.50	Wheat, red dog	....	0.45	25.0	6.0	450
15	3.5	8.0	.10	.90	Wheat, standard midds., brown shorts	....	0.80	44.0	8.0	460
14	2.0	1.0	.05	.50	Wheat, flour second clears	....	0.45	25.0	6.0	450
12	.5	0.0	.80	.70	Whey, dried cheese	....	12.00	5.0	20.0	700

ANALYSIS OF MINERALS

	Calcium %	Phosphorus %
Bone meal, steamed	24	12.0
Bone meal, special steamed	26	13.0
Defluorinated super phosphate	31	13.0
Defluorinated rock phosphate	21	8.5
Defluorinated treble phosphate	32	18.5

Use the figures as guaranteed by the manufacturer.

	Calcium %	Phosphorus %
Phosphate with colloidal clay	18	8.5
Curacao Island phosphate	35	15.0
Di-calcium phosphate	26	20.0
Limestone, 98% ca. carb. and oyster shell flour	38	00.0

Notes on the Feedstuffs Analysis Table

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Feed Formulation

It is suggested that before any attempts are made in formulating feeds that the nutritive requirements for livestock and poultry as outlined in the pamphlets published by the National Research Council be thoroughly studied. Copies of these pamphlets may be obtained from the National Research Council, 2101 Constitution Ave., N.W., Washington 25, D.C.

Vitamin A—Carotene

The figures under the Vitamin A column in this table indicate the Vitamin A activity from the carotenes. For poultry the values given may be added together with the true Vitamin A present in fish oil to determine the Vitamin A activity of the feed.

For four-footed animals one should allow three units of Vitamin A activity from carotene to equal one unit of true Vitamin A.

Alfalfa

There are few products used in making formula feeds that vary as widely in vitamin content as alfalfa. The carotene content of commercially available alfalfa varies from an equivalent of 10,000 to 300,000 units or more of Vitamin A activity per pound. The high values are generally obtained at the start of the cutting season, but as the season progresses, because of the instability of carotene and because of variations in field conditions, these values generally drop, depending upon when it is cut and how it was processed and stored.

When a feed manufacturer depends upon alfalfa to supply a major portion of the Vitamin A activity in his feeds, analysis should be obtained from a reputable laboratory at the time the alfalfa is to be used.

Loss in Storage

Among many other factors which must be taken into consideration by the feed manufacturer is the question of vitamin loss from the time the feed is made until it is consumed by the animals. The important factor that governs results is whether there is a sufficient amount of vitamins ingested by the animal. Vitamin A and carotene have long been recognized as the hardest to handle because they are readily oxidized. A safety factor should be allowed in formulating any feed to allow for these losses, that is, put in more than just enough to meet minimum requirements, increasing the amount when conditions require it.

Some of the detrimental factors which affect stability are long storage periods before feed is consumed, high storage temperatures, and the high concentration of minerals.

This problem of stability is receiving much attention now and some stabilized products are already on the market. If these new products are used, the manufacturer's recommendations should be given consideration.

Antibiotics in Feeds

Investigations regarding the use of antibiotics at low concentrations in feeds are in progress and the picture is far from complete. The following facts concerning this subject seem to be fairly well established and should be given consideration in formulating feeds.

Antibiotics are not interchangeable on an equal weight basis as far as results secured are concerned. For example, it may take from one to ten or more times as many grams of one of the antibiotics as it does of another to produce the same growth response.

The actual way antibiotics exert their growth promoting effects is to alter the flora of the intestinal tract. Just how this operates to promote faster growth is still under study.

None of the antibiotics seem to be carried over from the mother to the young.

The growth response to be expected from the use of antibiotics will vary widely with the amount used, the kind of animal, the sanitary conditions existing, the kind of antibiotic, and possibly other factors.

Antibiotics may influence the level of other vitamins needed for optimum results. Until this is completely investigated, it is suggested that no reduction of the other vitamins in the feed be contemplated, except upon competent nutritional advice.

The effects of antibiotics on ruminants may possibly be bad, and feeds made for ruminating animals should not contain antibiotics, until more work is done along this line.

Use of antibiotics in feeds does not lessen the need for emphasis on good management and sanitation practices.

Quick Conversion Table for—Vitamin A

U.S.P. Units	
Per gram	Per lb.
600	272,400
1,000	454,000
2,000	908,000
3,000	1,362,000
4,000	1,816,000

Vitamin A Table

These figures are not intended to indicate how much Vitamin A oil should be added to any feed. The amount would depend upon how much is obtained from other sources such as alfalfa meal and yellow corn.

Conversion Tables

1 pound=454 grams
1 ounce=28.4 grams
1 gram=1,000 milligrams

1 milligram=1,000 micrograms, also call gammas (γ).

1 microgram per gram equals 1 part per million.

.6 microgram of beta-carotene=1 unit of Vitamin A activity.

.3 microgram of Vitamin A=1 unit of Vitamin A.

To convert milligrams per gram to milligrams per pound multiply by 454.

To convert micrograms per gram or per pound to milligrams per gram or per pound divide by 1,000.

To convert milligrams per pound to micrograms per gram or parts per million divide by .454 or multiply by 2.2.

Vitamins D_2 and D_3

Irradiated yeast or plant sterols provide Vitamin D_2 which is excellent for 4-footed animals but not suitable for poultry.

Vitamin D from irradiated animal sterols (D-activated animal sterol) or that from fish liver oils provides Vitamin D_3 which is suitable for both poultry and 4-footed animals.

Quick Conversion Table for—Vitamin D

A.O.A.C. Units		Lb. per ton of feed	Am't of D per lb. of finished feed
Per gram	Per lb.		
85	38,590	19	366.6
100	45,400	16	363.2
200	90,800	8	363.2
250	113,500	6.4	363.2
400	181,600	4	363.2
800	363,200	2	363.2
1,000	454,000	1.6	362.2
2,000	908,000	0.8	363.2

Vitamin B_{12}

Data now being obtained by various laboratories in the country show that the various animal protein sources contain Vitamin B_{12}. The amount contained in these products is not consistent, and is highly variable between samples of the same types of products.

Vitamin B_{12} may now be obtained from several companies in different concentrations and at a very reasonable cost. In order to be sure the minimum requirements of the animals are met, it is suggested that these commercial sources of Vitamin B_{12} be given consideration in all critical feeds, even though animal protein sources are used in the formulae. The recommendations of the manufacturers of Vitamin B_{12} concentrate will prove helpful in correctly formulating feeds that should contain Vitamin B_{12}.

Acknowledgment

This table represents the combined work of many laboratories throughout the country. Without their cooperation its accuracy would have been greatly impaired. To the feed control chemists, the research workers, and the chemists in the laboratories of private industry, we wish to express our sincere gratitude and thanks.

U.S. By-Product Feed Production by Crop Years for the Years 1919-49

Source: Cottonseed cake and meal and wheat millfeeds, Bureau of the Census; soybean and linseed cake and meal, Grain Branch, Production and Marketing Administration, derived from Census crushings reports; brewers' and distillers' dried grains, copra cake and meal, and rice millfeeds, Production and Marketing Administration; fish cake and meal, Fish and Wildlife Service, Department of Interior; gluten feed and meal derived from reports of the Corn Industries Research Foundation. Note: Year begins in October. Output listed in tons, 000's omitted.

Season beginning	Cotton-seed cake & meal	Soy-bean cake & meal	Lin-seed cake & meal	Peanut cake & meal	Copra cake & meal	Total oil-seed cake & meal	Fish cake & meal	Wheat millfeeds	Rice millfeeds	Gluten feed & meal	Alfalfa meal	Dis-tillers' dried grains	Brewers' dried grains	Dried & mo-lasses beet pulp
1949**.....	2,489.4	4,581.4	689.1	137.0	135.9	8,032.8	212.2	4,573.1	213.7	925.6	1,097.1	395.1	233.0	....
1948.....	2,416.3	4,330.4	686.8	116.7	118.0	7,668.2	189.4	4,794.8	190.3	848.3	1,069.6	332.9	232.4	283.0
1947.....	2,015.6	3,832.8	625.0	107.3	169.9	6,750.6	188.5	5,420.0	177.6	799.1	1,109.9	351.1	233.1	308.0
1946.....	1,428.3	4,056.4	374.1	113.0	194.2	6,196.0	183.3	6,099.9	166.1	997.0	1,012.4	411.3	228.3	295.0
1945.....	1,409.8	3,837.3	562.4	80.1	67.6	5,597.2	187.5	4,837.2	154.8	776.4	1,252.3	327.9	211.9	216.0
1944.....	1,916.3	3,698.5	449.4	92.2	42.3	6,198.7	204.8	5,916.8	149.6	863.9	935.5	633.5	217.4	178.0
1943.....	1,749.0	3,446.0	997.0	108.7	32.9	6,333.6	190.3	5,489.3	138.8	842.1	771.8	443.9	230.7	161.0
1942.....	2,014.9	3,200.3	797.6	103.0	33.7	6,148.5	194.5	5,213.6	144.7	927.3	679.8	356.9	232.4	289.0
1941.....	1,791.7	1,844.9	902.2	57.3	48.1	4,644.2	184.2	4,432.9	124.4	964.6	590.0	345.4	168.7	282.0
1940.....	1,988.3	1,543.4	744.7	133.5	90.8	4,500.7	226.9	4,371.9	124.9	758.6	470.0	206.5	117.2	303.0
1939.....	1,776.0	1,348.8	538.9	30.3	90.3	3,783.3	190.7	4,246.2	119.9	614.4	440.0	163.8	101.0	273.0
1938.....	1,969.9	1,064.4	481.4	65.0	74.8	3,655.5	194.8	4,545.0	124.2	566.9	410.0	149.1	104.1	324.0
1937.....	2,759.1	724.1	412.0	48.2	77.7	4,021.1	175.5	4,466.4	124.3	545.2	370.0	149.5	103.8	217.0
1936.....	2,145.7	495.8	586.1	57.0	63.6	3,348.2	206.4	4,410.9	108.0	510.5	380.0	230.4	110.2	230.0
1935.....	1,791.2	613.1	456.9	45.9	78.4	2,985.5	200.0	4,524.4	85.5	588.0	284.0	240.3	98.9	199.0
1934.....	1,588.4	220.4	397.6	43.8	60.9	2,311.1	†178.0	4,122.8	†83.3	443.6	204.9	....	....	222.0
1933.....	1,834.5	73.9	375.2	10.2	89.2	2,383.0	156.8	4,173.0	†83.0	576.7	233.9	....	....	275.0
1932.....	2,104.9	84.3	359.2	14.6	87.7	2,650.7	108.7	4,286.5	....	589.5	193.9	....	....	250.0
1931.....	2,499.2	114.7	361.0	11.4	70.6	3,056.9	84.2	4,375.7	....	510.9	178.4	....	....	174.0
1930.....	2,065.6	98.6	528.9	15.4	85.6	2,794.1	80.6	4,743.5	....	541.1	248.3	....	....	210.0
1929.....	2,289.0	40.7	568.9	26.8	93.2	3,018.6	121.3	4,951.8	....	647.4	374.7	....	....	159.0
1928.....	2,332.0	21.5	767.2	12.2	94.4	3,237.3	*119.6	4,907.9	....	702.1	350.7	....	....	139.0
1927.....	1,981.3	13.7	755.2	13.3	79.3	2,843.3	*84.5	4,894.0	....	702.6	374.2	....	....	165.0
1926.....	2,223.0	8.3	728.6	7.7	70.2	3,737.3	*71.9	4,783.7	....	644.8	....	....	....	152.0
1925.....	2,564.3	8.6	723.9	10.7	66.1	3,373.6	*69.4	4,889.9	....	634.7	....	....	....	....
1924.....	2,233.6	7.6	746.1	15.2	48.8	3,051.3	*76.6	4,781.5	....	509.8	....	....	....	....
1923.....	1,551.4	2.4	645.2	3.9	54.1	2,257.0	*56.9	5,100.3	....	554.8	....	....	....	....
1922.....	1,453.7	3.8	604.2	6.9	57.3	2,125.9	*69.0	5,115.0	....	486.0	....	....	....	....
1921.....	1,347.7	1.3	418.2	23.2	45.5	1,835.9	*90.4	4,717.0	....	497.3	....	....	....	....
1920.....	1,891.0	....	448.4	23.1	26.9	2,389.4	*62.5	....	....	349.2	....	....	....	....

*Calendar year following. **Preliminary. †Partly estimated.

State Laws for Feedstuffs

Note: The following summary of state laws regarding the sale of formula feeds has been made on the basis of information received up to Jan. 1, 1951. Manufacturers doing an interstate business are advised to communicate with the state officials indicated in this summary for further details and for information concerning possible changes.

ALABAMA

Registration is required annually on or before Oct. 1, or before offered for sale; fee $2 per brand. Inspection fee is 20¢ per ton, payable by stamps attached to each package or (by permit) on or before the 20th of each month for the tonnage and kind of commercial feed sold the preceding month. All feedstuffs used for feeding domestic animals and domestic or wild birds require registration; except whole seeds or grains, unmixed meals made directly from entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kaffir and milo when packed for human consumption; whole hays, straws, cottonseed hulls and corn stover when unmixed with other materials. Deposit of samples is not necessary unless requested. Label must show net weight, name, brand or trademark, name and address of manufacturer, jobber or importer, minimum percentage of crude protein and fat and nitrogen-free extract, maximum percentage of crude fiber, names of ingredients and percentage of each mineral or chemical added. Prohibited ingredients of commercial feeds are: rice hulls, oat hulls, cottonseed hulls, peanut hulls, barley hulls, coconut hulls (so called coconut hull meal), grit, oyster shell containing less than 95% calcium carbonate, weed seeds, mill oats or wild oats, ground straw, sugar cane bagasse (sugar cane pumice), corn cobs or shucks, and other materials which have little or no nutritional value. Weight standards: 5 and 8¼ lb. when packed 12 to a bale, 10, 25, 50, 100, 150 and 200 lb. Administrative officer: Commissioner of Agriculture and Industries, Montgomery.

ARIZONA

Inspection fee is 8¢ ton. Registration is required annually on or before Jan. 1 (no fee) on all materials for feeding animals or birds except unmixed whole seeds or grains, unmixed meals made directly from the entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kaffir, milo, and other grain sorghums, unground hays, straws, cottonseed hulls, stover and silage when unmixed with other materials. Sufficient tax tags or stamps must be delivered to cover sale and a statement containing label information for all goods sold in bulk or in packages belonging to purchaser. Deposit of samples is not necessary unless requested. Label must show net weight, name, brand or trademark, name and address of manufacturer or person responsible for marketing; minimum percentages of crude protein and fat; maximum percentage of crude fiber; specific name of each ingredient; mineral feeds must also bear label showing percentage of calcium, phosphorus and iodine and maximum per cent of salt. Administrative officer: State Chemist, University of Arizona, Tucson.

ARKANSAS

Inspection fee is 10¢ a ton payable quarterly on sworn statement of tonnage. Registration is permanent, no fee, but each brand of feeds must be registered, except whole grains, hays, straws and unmixed whole seeds or grains of cereals. Unadulterated wheat, corn, rye and buckwheat bran, shorts and middlings are exempt from inspection fee. Deposit of samples is not necessary unless requested. Each package of commercial feed must have attached thereto a tag, or label printed on package, showing net weight, name, brand or trademark, name and address of manufacturer, jobber, or importer, minimum percentages of crude protein, crude fat, nitrogen-free extract, maximum percentage of crude fiber; names of each and all ingredients; standard weights: 5, 10, 25, 50, 75 and 100 lb. Administrative officer: State Plant Board, 506½ Center St., Little Rock.

CALIFORNIA

Annual license of $3 for each plant is due by July 1, or before offered for sale. Inspection tax is 4¢ a ton, payable with stamps or special tags. All feedingstuffs used for feeding livestock and poultry require registration, except whole seeds or grain, when unmixed; fresh green roughage and unprocessed liquid milk in all its forms; whole hays, straws, cottonseed hulls, corn stover and wet citrus residue, when unprocessed and unmixed with other materials; wet garbage, and salt except in block or chunk form; and preparations which are sold as or represented to be primarily for the cure or mitigation of disease, and preparations which are sold for feeding domestic pets, such as dogs, cats and birds. Payment of tonnage tax must be indicated on the tag, either by the use of tonnage tax stamps or the official tonnage tax paid insignia printed on tags by tag companies or printers authorized to print this official tonnage tax paid insignia. Deposit of sample is not required. All packages must be labeled to show net weight; name, brand or trademark; name and address of manufacturer or person placing commodity on market; minimum percentages of crude protein, crude fat; maximum percentages of crude fiber and ash; recognized official name of each ingredient; percentage of corn cobs, oat hulls, barley hulls, rice hulls, ground light rice or similar materials; maximum percentage of mineral matter contained; and in the case of mixed feeds containing more than 5% mineral ingredients, minimum per cent of calcium (Ca), phosphorus (P), iodine (I), and the maximum percentage of salt if same be added; and maximum percentage of salt in any mixed feeds if more than 2% of salt is added. In the case of commercial feedingstuffs for which special qualities are claimed, such as vitamin potency, amino acid content, or protein quality, a definite guarantee relative to such quality. In cases where simple animal protein concentrates are sold or distributed the quality index of such protein may be certified to in addition to the minimum percentage of crude protein. Administrative officer: Director, Department of Agriculture, Sacramento 14.

COLORADO

Registration is permanent at $2 for each brand with inspection fee 10¢ ton. All feedstuffs must be registered, except unmixed whole seeds or grains, unmixed meals made directly from and consisting of entire grains of corn, wheat, rye, barley, oats, kafir and milo, or a mixture of any two of the foregoing; whole hays, straws, sugar beet by-products, ensilage and cane molasses when unmixed with other materials.

Deposit of sample is not necessary unless requested. The label, either on tag or printed on package, must contain net weight; name, brand or trademark; name and address of person responsible for placing commodity on market; minimum percentage of crude protein, fat and nitrogen-free extract; maximum percentage of crude fiber; specific name of ingredients. Administrative officer: Commissioner of Agriculture, Denver.

CONNECTICUT

Annual registration is required on or before Jan. 1, or before goods are offered for sale; fee $15 per brand. No wire or metal may be used in affixing tags or labels. Label either on tag or printed on package, must show net weight and name, brand or trademark; name and address of manufacturer or importer; minimum percentages of crude protein, crude fat, and the maximum percentage of crude fiber;

and name of each ingredient. Materials requiring registration are: linseed meals, cottonseed meals, pea meals, bean meals, coconut meals, gluten meals, gluten feeds, dried brewers' grains, dried distillers' grains, malt sprouts, dried beet pulp, hominy feeds, cerealine feeds, rice meals, alfalfa meals, oat feeds, corn and oat chop, corn and oat feeds, scratch feeds, digester tankage, ground meat scraps, ground fish scraps, mixed feeds, provenders, bran, middlings and mixed feeds made wholly or in part from wheat, rye or buckwheat and all materials of a similar nature intended for feeding of domestic animals, including poultry. Deposit of samples is not required. Administrative officer: Director, Agricultural Experiment Station, New Haven.

DELAWARE

Annual calendar year registration is required for each brand or before goods are offered for sale; registration fee $1 per brand. Feeds in packages or cans of 10 lb. or less may be registered for $10 per brand annually without tonnage tax. Report of total sales of each brand is required on or before Feb. 1 of each year, with payment of inspection fee at 10¢ per ton. Each package must be plainly marked on tag or printed on package with net weight of contents; name, brand or trademark; name and address of manufacturer or dealer; minimum percentage of crude protein and crude fat; maximum percentage of crude fiber; specific name of each ingredient. All materials used for feeding animals or birds require registration; except unmixed whole seeds or grains; unmixed meals made directly from the entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir, milo and other seeds or grains; whole hays, straws, cottonseed hulls, ensilage and corn stover when unmixed with other materials. Deposit of samples is not necessary unless requested. Administrative officer: Secretary, State Board of Agriculture, Dover.

FLORIDA

Registration is annual, under oath on or before Jan. 1 or before feeds are offered for sale. Inspection fee is 25¢ per ton. Seller must use special tags, except that packages of less than 25 lb. may carry inspection stamps in lieu of tags. Feeds for mixing purposes only are exempt from inspection fee, but must carry tags stating they are for mixing only and that the tax has not been paid. Registration is required of all materials used for feeding animals and birds, except unmixed whole seeds or grains, as defined by U.S. grain standards, and whole hays, straws, cottonseed hulls, stover, silage, etc., except that these "latter materials when ground, either mixed or unmixed, shall be registered as 'commercial feeds.'" Each package must have a tag or label attached stating the net weight, brand or trade name of the feed, name and address of the manufacturer or person responsible for placing commodity on market, minimum percentage of crude protein, crude fat, maximum percentage of crude fiber, name of each ingredient used in its manufacture, and the minimum or maximum percentage of added minerals as required by regulation. Deposit of samples is not required. Printing on package is optional, use of tag or label is "mandatory." Metal fasteners on tags are prohibited except on poultry feeds. Administrative officer: Commissioner of Agriculture, Tallahassee.

GEORGIA

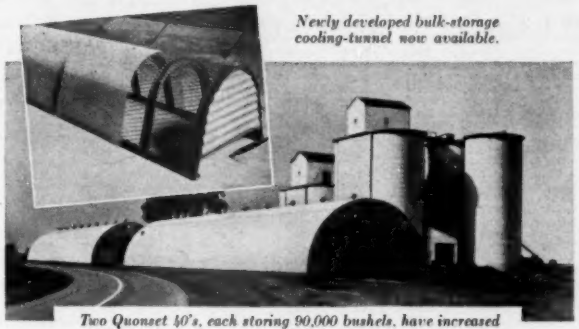
Brands must be registered annually by Jan. 1 with registration fee of $2 for each brand. Inspection fee is 20¢ per ton. Stamps are to be secured from the state Department of Agriculture and affixed to the tags or labels. Materials requiring registration are: Cottonseed meal, linseed meal, corn and cob meal, coconut meal, gluten feeds, gluten meal, germ feeds, corn feeds, starch feeds, sugar feeds, dried brewers' grains, malt sprouts, dried distillers' grains, dried beet refuse, hominy feed, cerealine feeds, rice meals, rice brans, rice polish, peanut meal, oat feeds, corn and oat feeds, corn bran, wheat bran, wheat middlings, wheat shorts, groats, feed wheat or screenings, mixed feeds, clover meal, alfalfa meal and feeds, pea vine meal, cottonseed meal feeds, whole seeds and grains and meals, mixed or unmixed, made from such seeds or grains, and all other materials of a similar nature. Every package must have a tag or label stating net weight, name, brand or trademark, number of ingredients, name and address of the manufacturer, jobber or importer, and statement of maximum percentage of crude fiber and minimum percentage of crude fat and crude protein, names of ingredients. (This requirement is a regulation of the department. Statute does not require information.) Tag must be printed in black ink attached to package; or information may appear in form of printing on package. Deposit of samples is not necessary unless requested. Standard weights: 50, 75, 100, 125, 150, 175 and 200 lb. Administrative officer: Commissioner of Agriculture, Atlanta.

IDAHO

Annual registration is required on or before April 1; fee to be determined each year but not to exceed $5 for any one year. Inspection fee is 10¢ per ton, payable quarterly on statement of tonnage sold during the three months immediately preceding. Reports are to be filed on Jan. 15, April 15 and Oct. 15 of each year. All feedingstuffs used in feeding of livestock, fur bearing animals and poultry require registration, except unmixed meals made directly from and consisting of entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, grain sorghums, peas and beans; whole hays, straws, cottonseed hulls, corn stover; ground or whole mill screenings when unmixed with other materials. Label either in form of printing on package or tag attached to package, must show net weight of the contents of the package, lot or parcel; name, brand or trademark; name and principal address of the manufacturer or distributor; minimum percentage of crude protein, minimum percentage of crude fat; maximum percentage of crude fiber and ash, maximum percentage of grit and shell or other mineral matter added and specific name of each ingredient used in its manufacture. Upon request a sealed package containing at least one pound of the commercial feedingstuffs to be sold in this state is deposited, with affidavit that the said sample is representative of the commercial feedingstuffs offered for registration. Administrative officer: Commissioner of Agriculture, Boise.

ILLINOIS

Registration fee is $25 for each brand or $1 for each brand plus a 10¢ tonnage tax for each calendar year or portion thereof. Feeds intended for mixing purposes only must be registered and guaranteed under the $1 license fee; however, if tagged, "For Mixing Purposes Only," are exempt from payment of tonnage tax. Registration must be made annually on or before Jan. 1 or before offering goods for sale. Registration is required for all materials used for feeding animals or birds, except: whole seeds or grains; unmixed meals made directly from and consisting of the entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir and milo; whole hays, straws, cottonseed hulls, corn stover and silage. Samples, not to exceed two pounds, must be taken in duplicate; one sample to be delivered to owner. Each package must be labeled showing net weight of contents; name, brand or trademark; name and principal address of the manufacturer or person responsible for placing commodity on market; minimum percentage of crude protein and crude fat; maximum percentage of crude fiber; name of ingredients; minimum percentage of calcium, phosphorus and iodine, and the maximum percentage of salt. If any foreign substance is added to "mixed feeds," composition of the mixture must be plainly indicated on the label.



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U. S. Consumption of By-Product Feeds Used as Feed by Crop Years

Source: U.S. Department of Agriculture. Note: Year begins in October. Figures shown represent production plus imports, minus exports, minus estimated use for food, industry and other non-feed uses. In tons, 000's omitted.

Season beginning October	Cotton-seed cake & meal	Soy-bean cake & meal	Lin-seed cake & meal	Peanut cake & meal	Copra cake & meal	Total oil-seed cake & meal	Fish meal	Wheat millfeeds	Rice millfeeds	Gluten feed & meal	Alfalfa meal	Dis-tillers' dried grains	Brewers' dried grains	Dried & mo-lasses beet pulp
1950*.....	1,700.0	5,200.0	625.0	75.0	175.0	7,775.0	250.0	4,650.0	175.0	975.0	1,050.0	450.0	235.0	400.0
1949.....	2,375.0	4,500.0	675.0	100.0	185.0	7,835.0	250.0	4,750.0	200.0	926.0	1,050.0	350.0	235.0	340.0
1948.....	2,271.0	4,156.0	620.0	96.0	160.0	7,303.0	229.0	4,916.0	190.0	848.0	1,122.0	334.0	233.0	340.0
1947.....	1,953.0	3,383.0	606.0	122.0	177.0	6,241.0	213.0	5,480.0	178.0	799.0	999.0	353.0	228.0	311.0
1946.....	1,434.0	3,745.0	370.0	88.0	190.0	5,827.0	191.0	6,144.0	166.0	1,040.0	1,040.0	410.0	229.0	300.0
1945.....	1,433.0	3,655.0	563.0	82.7	68.7	5,803.0	194.0	4,896.0	155.0	802.0	1,191.0	325.6	212.7	218.0
1944.....	1,981.6	3,627.0	458.7	96.1	42.3	6,206.0	209.0	5,638.0	149.3	863.9	921.7	634.3	216.8	182.0
1943.....	1,790.1	3,323.0	995.0	119.9	32.8	6,255.0	196.2	5,547.4	138.8	842.1	733.5	444.1	231.0	161.0
1942.....	2,077.5	3,074.0	794.4	108.6	33.6	6,088.0	202.5	5,323.5	144.7	927.3	679.8	356.1	230.4	300.0
1941.....	1,820.8	1,783.2	891.3	70.7	70.7	4,636.7	207.3	4,619.5	124.4	964.6	590.0	346.3	173.6	298.0
1940.....	1,861.9	1,491.1	740.5	137.1	174.8	4,405.4*	262.3	4,785.6	124.9	758.6	470.0	206.1	115.7	322.0
1939.....	1,761.7	1,275.6	393.5	38.1	178.7	3,647.6	237.5	4,624.6	119.9	614.4	440.0	163.4	100.2	286.0
1938.....	2,012.9	1,019.7	202.6	74.8	128.7	3,438.7	245.7	4,762.0	124.2	566.9	410.0	149.1	103.6	339.0
1937.....	2,332.7	718.6	177.0	50.4	117.5	3,396.2	221.4	4,448.3	124.3	545.2	370.0	149.0	102.5	246.0
1936.....	2,099.2	531.5	275.2	66.6	136.6	3,107.1	274.5	4,669.9	108.0	510.5	380.0	231.2	114.1	290.0
1935.....	1,718.3	614.1	263.5	47.8	127.7	2,771.4	235.6	4,739.3	88.5	588.0	284.0	243.4	97.0	228.0
1934.....	1,524.3	266.6	202.3	47.3	112.4	2,152.9	186.4	4,412.6	88.9	443.6	204.9	....	....	249.0
1933.....	1,700.5	98.9	142.2	11.4	117.1	2,070.1	169.8	4,267.2	83.0	576.7	233.9	....	....	282.0
1932.....	1,680.3	112.6	262.4	16.9	94.8	2,107.0	130.5	4,368.3	....	589.5	193.9	....	....	262.0
1931.....	1,740.4	133.3	204.1	13.7	75.2	2,166.7	106.5	4,369.5	....	510.9	178.4	....	....	193.0
1930.....	1,821.0	122.6	334.1	17.6	96.5	2,391.8	121.1	4,946.2	....	541.1	248.3	....	....	285.0
1929.....	2,014.7	114.2	368.2	35.1	109.5	2,641.7	139.6	5,110.8	....	647.4	374.7	....	....	211.0
1928.....	1,894.1	91.0	439.1	17.5	109.9	2,551.6	119.6	5,078.7	....	702.1	350.7	....	....	165.0
1927.....	1,571.1	61.4	493.0	22.4	95.4	2,243.3	84.5	5,020.0	....	702.6	374.2	....	....	183.0
1926.....	2,208.4	32.2	425.7	9.8	87.2	2,763.3	71.9	4,877.0	....	644.8	....	....	....	183.0

*Preliminary.

Administrative officer: Superintendent, Division of Plant Industry, Springfield.

INDIANA

No inspection fee, but state tags or labels must be used except on brands sold in packages of 5 lb. or less. Labels are issued for 25, 50 and 100 lb.; minimum order of $5. In case a feedingstuff is sold in packages of 5 lb. or less the manufacturer may pay an annual registration fee of $20 per brand in lieu of attaching Indiana state labels to each package of five pounds or less. In such cases the manufacturer's label on package must give the information required to appear on packages. Materials requiring registration are: linseed meals, coconut meals, gluten feeds, gluten meals, germ feeds, corn feeds, maize feeds, dairy feeds, starch feeds, sugar feeds, dried brewers' grains, malt sprouts, dried distillers' grains, dried beet refuse, hominy feeds, cerealine feeds, rice meals, rice bran, rice polish, peanut meals, oat feeds, corn and oat feeds, corn bran, wheat bran, wheat middlings, wheat shorts, and all other mill byprodvcts not otherwise excluded; ground beef or fish scraps, dried blood, blood meals, bone meals, tankage, meat meals, slaughter house waste products, mixed feeds, clover meals, alfalfa meals and feeds, pea vine meal, cottonseed meal, velvet bean meal sucrene, mixed feeds and mixed meals made from seeds or grains, and all other materials of similar nature used for food for domestic animals; condimental feeds, poultry feeds, stock feeds, patented, proprietary or trade and market stock and poultry feeds. Exempted are: straw, whole seeds, unmixed meals made directly from and composed of entire grains of wheat, rye, barley, oats, Indian corn, buckwheat, and broom corn, wheat flours or other flours. Deposit of samples is not required. All packages must have official state chemist's label attached to package unless package is 5 lb. or less, showing net weight, name, brand or trademark, name and address of manufacturer, minimum percentage of crude protein and fat, maximum percentage of crude fiber and names of ingredients. Word "manufacturer" is understood to be party registering feed for sale. Goods sold in bulk must be registered and a sufficient amount of state chemist labels furnished to cover amount so sold. Administrative officer: State Chemist, Purdue University Agricultural Experiment Station, La Fayette.

IOWA

Before any formula feed is offered or exposed for sale or sold an annual registration fee of 50¢ per brand must be paid to the department. All formula feeds and feed ingredients including poultry shells or poultry limestone for feeding domestic animals and poultry require registration except hay, straw, whole seeds, unmixed meals made from the entire grains of wheat, rye, barley, oats, Indian corn, buckwheat and broom corn; flours fit for human consumption. Unadulterated wheat, rye and buckwheat bran, shorts or middlings of Iowa manufacture require registration but not inspection fee. Dealers to furnish sample upon request accompanied by affidavit that it is a fair average sample of materials it represents. Label, either on tag or printed on package, must state net weight of contents; name, brand or trademark; name and principal address of manufacturer or dealer; minimum percentage of crude protein, crude fat and maximum percentage of crude fiber, names of each ingredient; minimum percentage of phosphorus (P), iodine (I) and the maximum percentage of calcium (Ca) and salt (NaCl). In mineral feeds and in mixed feeds containing more than 5% mineral ingredients. Statement must be filed on or before Jan. 15 and July 15, which sets forth the number of net tons sold or distributed in state during six preceding calendar months; and upon such statement pay to the department 10¢ for each such ton sold in the state during that period. Administrative officer: Secretary of Agriculture, Des Moines.

KANSAS

Registration is required for each brand and is permanent; no fees. All feedingstuffs must be registered; limestone and shell products when used for feeding livestock and poultry, except whole seeds or grains, unmixed meals made directly from and consisting of entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir and milo, whole hays, straws, corn stover, and cottonseed hulls when unmixed with other materials, all other materials consisting of 60% or more of water. Inspection fee is 8¢ per ton; fee may be paid by tag or stamp on each package, or on Jan. 1 and July 1 if a permit to do so is obtained. Label must state net weight of contents; name of feedingstuff; name and principal address of manufacturer and specific name of each ingredient. In addition, formula feeds must show: minimum percentage of crude protein and crude fat, maximum percentage of crude fiber; inorganic feeds must show minimum percentage of calcium, phosphorus and iodine and maximum percentage of salt. Mineralized feeds must show minimum percentage of crude protein, crude fat, calcium, phosphorus and iodine and maximum percentage of crude fiber and salt. Deposit of samples is not necessary unless requested. Administrative officer: Secretary, State Board of Agriculture, Topeka.

KENTUCKY

Inspection fee is 20¢ ton. Registration is permanent unless called for by the department at beginning of some calendar year; no fee. Registration is required for linseed meals, corn and corn cob meals, coconut meals, gluten feeds, gluten meals, germ feeds, corn feeds, starch feeds, sugar feeds, dried brewers' grains, malt sprouts, dried distillers' grains, dried beef refuse, hominy feeds, cerealine feeds, rice meals, rice bran, rice polish, peanut meals, oat feeds, corn and oat feeds, corn bran, wheat bran, wheat middlings, wheat shorts and other mill products, ground beef or fish scraps, mixed feeds, clover meal, alfalfa meal and feeds, pea vine meals, cottonseed meal, velvet bean meal, feeds and meals mixed or unmixed made from seeds or grains, and all other materials of similar nature used for food for domestic animals, condimental feeds, poultry feed, stock feeds, patented, proprietary or trade and market stock and poultry feeds. Deposit of samples is not required. Label must state net weight of contents, name and address of manufacturer, name, brand, or trademark, minimum percentages of protein and fat and maximum percentage of crude fiber, the specific name of each ingredient, and kind and amount of adulterants. Standards have been made for many by-product feeds, including wheat feeds, and special purpose mixed feeds. If any material of little or no feeding value is used, the percentage of same must be given. If screenings and fillers are used, the percentage must be given and the statement whether ground or unground. The percentage of fillers must not exceed 25%. Package sizes: 10, 25, 50, 100 lb. Administrative officer: Bruce Poundstone, Feed & Fertilizer Dept., Kentucky Agricultural Experiment Station, University of Kentucky, Lexington.

LOUISIANA

Before any feed may be sold or offered for sale the guarantor must file the following information with the commissioner for each brand of feed to be sold in the state: net weight of contents of package, brand, name and address of guarantor, minimum percentage by weight of crude protein and crude fat, maximum percentage by weight of crude fiber, specific name of each ingredient used in manufacture of the feed, and a statement of guaranty as "shall be specified by ruling of the commissioner in case feeds claim dietary factors in forms not expressible by the foregoing or which are not adequately described thereby." Every lot or package of feed sold must carry a readily visible tag or label stating in "plain English" same information furnished to commissioner on registration. All feedingstuffs used for feeding livestock and poultry must be registered; except whole unmixed grains or seeds, whole hays, straw, chaff and hulls from grains or seeds, corn stover unmixed with other materials and other materials containing more than 60% water. Cottonseed meal, soybean meal or peanut meal sold or offered for sale for commercial feed must contain a minimum of 41% protein. Weight standards: all feeds except poultry feeds, 100 lb. net per bag; poultry feeds, 10, 25, 50 and 100 lb. net per package. Inspection fee is 25¢ per ton; payments are made on the basis of tonnage reports. Tonnage reports and inspection fees are due and payable Dec. 1, March 1, June 1 and Sept. 1. Administrative officer: Commissioner of Agriculture and Immigration, Box 951, Baton Rouge.

MAINE

No inspection fee is required. Registration fee is $10 per year for each brand, annually by Jan. 1, or before offered for sale. Free registration for second year if sales are no more than 50 tons for year registered. All materials used for feeding livestock and poultry are required to be registered except: hays and straws, whole seeds and unmixed meals made directly from entire grains of wheat, rye, barley, oats, corn, buckwheat, flaxseed and broom corn. Label, either on tag or printed on package, must state net weight, name, brand or trademark, minimum percentage of crude protein, crude fat and maximum percentage of crude fiber; name and principal address of manufacturer or shipper; name of ingredients; name of any artificial coloring matter used. Deposit of samples is not necessary unless requested. Admin-

istrative officer: Commissioner of Agriculture, Augusta.

MARYLAND

Registration is annual by Jan. 1, or before goods are offered for sale; fee $15 per brand except that no fee is required on pure by-product millfeeds, pure corn and oat chop, pure corn bran and pure corn meal. All feedingstuffs used for feeding livestock and poultry are required to be registered except: whole seeds or grains, unmixed meals made directly from and consisting of the entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir, and milo; whole unmixed hays, straws, cottonseed hulls, corn stover and silage. No inspection fee. Label, either in form of printing on package or on tag attached to package, must state net weight of contents; name, brand or trademark; name and principal address of manufacturer or dealer; minimum percentage of crude protein and crude fat; maximum percentage of crude fiber; specific name of each ingredient. Deposit of samples is not necessary unless requested. Administrative officer: State Chemist Maryland Inspection and Regulatory Service, College Park.

MASSACHUSETTS

Annual registration is required, by calendar years or before goods are offered for sale; fee $20 for each brand. All materials for feeding livestock and poultry containing not more than 60% water require registration, except whole seeds or grains, unmixed meals made directly from entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir and milo, whole hays, whole straws, unground cottonseed hulls, and unground corn stover, when unmixed with other materials. Label, either on tag or printed on each package must state net weight of contents; name, brand or trademark; name and principal address of manufacturer or dealer; minimum percentage of crude protein and crude fat; maximum percentage of crude fiber; specific name of each ingredient. If the tag or label contains any claim of one or more dietary factors other than those specified in the act, such tag or label must bear a legible and plainly printed statement in the English language guaranteeing such claim. Deposit of samples is not required. Applications for registration and communications in regard to the law should be addressed to the official chemist. Administrative officer: Director, Massachusetts Agricultural Experiment Station, Amherst.

MICHIGAN

Annual registration is required by Jan. 1, or before goods are offered for sale; fee is $20 per brand for each "calendar year or portion thereof" for wholesale manufacturers; $10 per brand sold by retail manufacturers direct to consumer. Registration is required for all simple or mixed, prepared, mixed, compounded, processed or blended products together with all condimental and patented proprietary feeds used for feeding animals other than man, except unmixed whole seeds or grains, unmixed meals made directly from entire grains of corn, wheat, rye, barley, oats; cracked or rolled corn, screened or unscreened, wheat and oats; whole hays, straws, ensilage and corn stover when unmixed with other materials, liquid byproducts from milk returned to farmers from cheese factories, skimming stations, creameries or other places where milk is received and the byproducts distributed. No stamps required. Each package must be labeled, either on forms of printing on package or tag attached, showing net weight; name, brand or trademark, name of actual manufacturer and place where manufactured or name and principal address of person responsible for placing commodity on market; minimum percentage crude protein; minimum percentage crude fat; except in case of meat and fish byproducts, when actual percentage must be declared allowing not more than 1% variation; maximum percentage crude fiber; specific name of each ingredient used in feed manufacture; percentage of each ingredient present in amount of less than 5%, in feeding molasses, minimum percentage of sugar and maximum percentage of ash; in semi-solid buttermilk, minimum percentage of total solids and milk fat; maximum percentage of ash and water; in wet brewers' and distillers' grains, in addition to protein, fat and fiber, maximum percentage of water; in mineral feeds, mixed or unmixed, minimum percentage of calcium, phosphorus, iodine and maximum percentage of salt. If no nutritional properties other than of a mineral nature is claimed, percentages of crude protein, crude fat and crude fiber may be omitted. Deposit of samples is not necessary unless requested. Administrative officer: Director of Agriculture, Lansing, Michigan.

U.S. Feed Supply and Use Per Animal

Note: Year beginning October, average 1937-41. **Source: USDA**

Item—	Average 1937-41	1945	1946	1947	1948	1949*	1950†
				million tons			
Supply—							
Stocks beginning of crop year‡	16.9	14.9	10.9	13.9	7.9	30.8	31.2
Production—							
Corn	72.1	80.7	91.0	66.8	103.1	94.6	87.7
Oats	18.1	24.6	24.0	19.2	23.9	21.3	23.4
Barley	6.9	6.4	6.3	6.7	7.6	5.7	7.2
Sorghum grains	2.2	2.7	3.0	2.7	3.7	4.3	6.7
Total feed grains produced	99.3	114.4	124.3	95.4	138.3	125.9	125.0
Other grains fed†	4.5	8.2	4.3	6.1	4.5	5.5	6.0
By-product feeds for feed	15.4	17.7	19.4	19.0	20.0	20.6	20.4
Total supply of concentrates	136.1	155.2	158.9	134.4	170.7	182.8	182.6
Utilization—							
Domestic feed grains fed	85.3	107.6	100.3	87.2	99.8	108.0	113.0
Domestic wheat and rye fed	4.3	8.0	4.2	6.0	3.9	4.8	††5.0
Oilseed cake and meal fed	3.9	5.8	5.8	6.2	7.3	7.8	8.0
Animal protein feeds fed	2.9	2.4	2.3	2.4	2.4	2.5	2.4
Other by-product feeds fed	8.6	9.5	11.3	10.4	10.3	10.3	10.0
Total concentrates fed	105.0	133.3	123.9	112.2	123.7	133.4	138.4
Feed grains for seed, human food, industry and export	12.1	13.3	19.3	13.6	17.7	17.2	20.0
Total utilization	117.4	146.6	143.2	125.8	141.4	150.6	158.4
Total utilization adjusted to crop year basis	116.2	144.3	145.0	126.5	139.9	151.6	158.6
Stocks at end of crop year‡	19.9	10.9	13.9	7.9	30.8	31.2	24.0
Number of grain-consuming animal units fed annually Oct.-Sept. (million)	153.1	167.8	161.4	155.7	162.7	169.0	173.0
Supply of all concentrates per animal unit (ton)	.89	.92	.98	.86	1.05	1.08	1.06
Concentrates fed per animal unit (ton)	.69	.79	.77	.72	.76	.79	.80

*Preliminary. †Based on indications in December, 1950. Tentative estimates of utilization and carryover. ‡Stocks in all positions of corn Oct. 1 and oats and barley July 1 and from 1947 to date, sorghum grains Oct. 1. §Imported grain and domestic wheat and rye fed. ††Does not include frost damaged wheat from Canada, substantial quantities of which will be available for import later in the feeding season.

MINNESOTA

Registration is permanent with no fee. On or before Jan. 31 of each year licensee must file sworn statement showing amounts of each brand of feed he has sold or offered for sale in the state during the previous year ending Dec. 31. Inspection fee is 16¢ per ton if paid (by permit) quarterly on sworn statement of sales. Otherwise, official tags or stamps must be used and are available for 100 lb. size $8 per 1,000; 51 to 99 lb. size (weight left blank) $8 per 1,000; 50 lb. $5 per 1,000; 25 lb. $3 per 1,000 and 1 to 24 lb. (weight left blank) $2 per 1,000. Shipping case containing small packages (less than 10 lb. each) may be regarded as unit for official tags or stamps. Registration is required for linseed meals, coconut meals, gluten feeds, gluten meals, germ feeds, corn feed, maize feeds, starch feeds, sugar feeds, dried brewers' grains, malt sprouts, dried distillers' grains, dried beet refuse, hominy feeds, cerealine feeds, rice meals, rice brans, rice polish, peanut meals, oat feeds, corn and oat feeds, corn bran, wheat bran, wheat middlings, wheat shorts, all other mill byproducts not specifically excluded, ground beef or fish scraps, dried blood, blood meals, bone meals, tankage, meat meals, slaughter house waste products, mixed feeds, canned and dry dog foods, clover meals, alfalfa meals and feeds, pea vine meal, cottonseed meal, sunflower oil cake, velvet bean meal or any other leguminous meal, mixed feeds and mixed meals made from seeds or grain and all materials of similar nature used for food for domestic animals, condimental feeds, poultry feed, stock feeds, patented proprietary or trade marked stock and poultry feeds, mineral mixtures, iodized salts, dried or condensed buttermilks and skim milks, cod liver oils, vitamin D carriers and other vitamin supplements, except straws, hay, whole seeds, unmixed meals made directly from the entire grains of wheat, rye, barley, oats, Indian corn, buckwheat and broom corn, wheat flours or other cereal flours. Label, either in the form of printing on package or tag attached to package, must state net weight, name, brand or trademark, name of manufacturer, location of principal office of manufacturer, minimum percentage of crude protein and crude fat, maximum percentage of crude fiber and names of ingredients. Special guarantees are required for mineral feeds, salts, vitamin D carriers and other vitamin supplements. Deposit of samples is not required. Administrative officer: Commissioner of Agriculture, Dairy and Food, St. Paul, Minn.

MISSISSIPPI

Registration of brands is required annually on or before Jan. 1, or before offered for sale; fee $5 for each brand. Registrations are to be filed with commissioner at Jackson, and State Chemist, State College, Miss. No fee for registration with state chemist. Inspection fee, 20¢ ton. In lieu of affixing stamps, permit may be issued to file quarterly reports showing the total tonnage for sales for the preceding three months. Payment of inspection fee to be enclosed with each report. Reports due on Jan. 1, April 1, July 1 and Oct. 1. Report must be filed and inspection fee paid by the 13th day of the month following due date. Registration is required of cottonseed meal, so-called mineral feeds and all other feedingstuffs used for feeding livestock and poultry, except whole unmixed seeds or grains, cottonseed hulls, unmixed meals made from and consisting of entire grains of corn (but not corn chops), wheat, barley, rye, oats, buckwheat, flaxseed, kafir and milo, whole hays, straws when unmixed with other materials, and

Kansas City Feed Movement

Note: Bran and shorts, in tons. Source: Kansas City Board of Trade.

	Receipts	Shipments
1950	96,660	349,200
1949	97,560	336,420
1948	137,430	349,040
1947	139,260	392,730
1946	25,440	297,960
1945	26,910	389,460
1944	22,080	377,880
1943	68,130	414,900
1942	106,745	370,390
1941	109,025	393,275
1940	49,400	250,225
1939	48,725	301,150
1938	75,435	383,275
1937	79,900	419,500
1936	74,000	377,375
1935	41,975	365,904

MANUFACTURED FEED (TONS)

	Shipments
1950	446,040
1949	411,630
1948	310,710
1947	373,380
1946	426,690
1945	440,190
1944	443,520
1943	430,230
1942	426,950
1941	250,700
1940	219,200
1939	204,375
1938	153,350
1937	204,300
1936	274,050
1935	185,375

U. S. Farm Animal Population by States

Note: Preliminary report of livestock on farms (other animals not included) on Jan. 1, 1951 (000's omitted). Source: USDA

State and Division—	Horses and Colts Average 1940-49	Horses and Colts 1950	Horses and Colts 1951 (prelim.) No.	Horses and Colts % of 1950	Cattle and Calves Average 1940-49	Cattle and Calves 1950	Cattle and Calves 1951 (prelim.) No.	Cattle and Calves % of 1950	Cows and Heifers Average 1940-49	Cows and Heifers 1950	Cows and Heifers 1951 (prelim.) No.	Cows and Heifers % of 1950	Heifers 1-2 yrs. old kept for milk cows Aver. 1940-49	Heifers 1-2 yrs. old kept for milk cows 1950	Heifers 1-2 yrs. old kept for milk cows 1951 (prel.)	Heifer calves kept for milk cows Aver. 1940-49	Heifer calves kept for milk cows 1950	Heifer calves kept for milk cows 1951 (prel.)
Maine	35	24	22	92	225	216	214	99	130	122	120	98	35	35	35	37	38	39
New Hampshire	14	10	9	90	123	118	117	99	74	71	70	99	18	17	17	19	21	22
Vermont	39	30	27	90	444	432	429	99	300	287	281	98	60	62	63	63	65	67
Massachusetts	18	13	11	85	193	179	177	99	138	123	122	99	22	22	22	24	25	25
Rhode Island	2	1	1	100	29	27	27	100	23	21	21	100	2	2	2	3	3	3
Connecticut	15	8	7	88	177	171	171	100	126	116	116	100	19	21	21	22	25	25
New York	234	145	126	87	2,141	2,226	2,248	101	1,438	1,483	1,483	100	286	305	310	294	322	340
New Jersey	23	11	10	87	214	226	228	101	155	162	164	101	24	27	27	22	26	27
Pennsylvania	307	110	97	88	1,634	1,790	1,808	101	949	1,020	1,010	99	225	252	255	234	276	290
North Atlantic	585	352	310	88	5,179	5,386	5,419	101	3,331	3,405	3,387	100	691	743	752	717	801	838
Ohio	303	132	112	85	2,163	2,149	2,235	104	1,076	1,060	1,060	100	242	264	264	262	279	302
Indiana	238	107	94	88	1,810	1,740	1,843	105	792	728	721	99	168	156	147	183	173	177
Illinois	399	180	157	87	3,142	3,159	3,317	105	1,129	992	972	98	280	252	265	329	322	365
Michigan	243	100	80	80	1,893	1,914	1,971	103	1,018	1,016	1,026	101	243	260	276	272	288	302
Wisconsin	411	224	202	90	3,824	3,804	3,918	103	2,459	2,432	2,456	101	507	529	539	527	545	608
Minnesota	496	264	227	86	3,581	3,276	3,342	102	1,742	1,486	1,471	99	393	374	381	408	397	429
Iowa	552	244	205	84	5,189	4,960	5,208	105	1,423	1,182	1,158	98	306	273	271	329	317	336
Missouri	487	347	312	90	3,075	3,107	3,356	108	1,007	975	994	102	205	180	200	235	227	261
North Dakota	279	149	140	94	1,810	1,527	1,493	98	536	417	409	98	126	93	92	167	153	150
South Dakota	298	170	143	84	2,280	2,454	2,454	100	489	379	368	97	133	96	96	176	184	175
Nebraska	402	236	210	89	3,672	3,920	4,170	106	606	477	467	98	149	119	118	179	166	176
Kansas	329	199	177	89	3,624	3,627	3,917	108	744	628	634	101	158	134	137	187	173	185
North Central	4,435	2,352	2,059	88	35,894	35,657	37,232	104	13,021	11,772	11,736	100	2,910	2,730	2,786	3,256	3,224	3,466
Delaware	12	7	7	95	59	61	63	103	38	37	38	102	8	9	9	8	9	10
Maryland	67	41	36	88	383	449	473	105	220	245	255	104	45	55	57	49	59	65
Virginia	160	129	121	94	1,019	1,103	1,197	108	456	497	507	102	87	87	91	102	120	136
West Virginia	98	84	79	94	579	548	570	104	238	232	232	100	43	43	43	45	46	47
North Carolina	88	82	78	95	676	710	788	111	375	387	399	103	72	75	83	82	88	101
South Carolina	23	21	20	95	368	360	396	110	179	169	174	103	40	36	42	48	48	50
Georgia	38	34	33	97	1,085	1,220	1,330	109	388	406	414	102	107	113	115	122	135	149
Florida	25	23	23	100	1,104	1,392	1,503	108	132	152	152	100	41	45	55	56	85	96
South Atlantic	510	421	397	94	5,272	5,848	6,318	108	2,025	2,125	2,171	102	444	463	495	511	590	654
Kentucky	225	177	165	93	1,446	1,608	1,721	107	614	634	640	101	105	102	109	112	129	144
Tennessee	160	120	113	94	1,384	1,462	1,550	106	625	640	640	100	117	117	125	130	135	150
Alabama	64	56	50	89	1,204	1,330	1,476	111	435	430	447	104	133	134	142	158	170	189
Mississippi	116	104	95	91	1,513	1,674	1,791	107	568	543	554	102	125	121	118	147	151	174
Arkansas	168	135	128	95	1,210	1,209	1,282	106	494	444	435	98	132	109	111	154	140	155
Louisiana	138	109	107	98	1,383	1,439	1,569	109	352	331	338	102	91	78	80	109	124	136
Oklahoma	316	313	197	99	2,773	2,630	2,767	107	806	648	648	100	202	161	158	275	230	246
Texas	536	352	324	92	8,409	8,874	9,260	108	1,468	1,283	1,309	102	296	274	274	361	394	411
South Central	1,724	1,266	1,174	93	19,321	19,926	21,463	108	5,361	4,953	5,011	101	1,202	1,096	1,117	1,446	1,473	1,607
Montana	225	146	134	92	1,680	1,712	1,815	106	156	128	123	96	33	29	27	55	50	54
Idaho	145	80	74	93	898	939	986	105	246	222	220	99	60	59	62	76	82	92
Wyoming	112	80	76	95	972	1,001	1,041	104	66	55	54	98	15	14	14	18	15	15
Colorado	135	113	103	92	1,713	1,800	1,818	101	234	202	198	98	49	45	50	62	61	61
New Mexico	109	77	74	96	1,266	1,166	1,189	102	74	57	57	100	17	12	12	20	18	17
Arizona	73	65	62	95	917	849	883	104	49	49	50	102	13	12	13	14	13	13
Utah	74	56	52	93	522	549	560	102	115	115	112	97	28	26	27	35	39	39
Nevada	38	35	34	97	467	552	580	105	21	21	21	100	6	7	7	10	13	15
Washington	101	54	46	85	897	851	885	104	358	326	319	98	83	71	70	98	100	112
Oregon	113	73	63	86	1,079	1,107	1,118	101	265	240	235	98	64	58	59	76	85	86
California	152	106	105	99	2,748	2,709	2,872	106	833	903	885	98	221	217	201	240	283	325
Western	1,326	883	823	93	13,160	13,235	13,747	104	2,418	2,318	2,274	98	590	550	542	704	759	829
United States	8,581	5,274	4,763	90	78,826	80,052	84,179	105	26,157	24,573	24,579	100	5,837	5,582	5,692	6,633	6,847	7,394

all other materials when containing 60% or more of water. Each package must be labeled to show net weight of contents; name, brand or trademark; name and principal address of manufacturer or guarantor; minimum percentage of crude protein and crude fat; maximum percentage of crude fiber; specific name of each ingredient. Commissioner is required by law to collect $5 per ton on all commercial feed found to be deficient in protein and fat, or excessive in fiber. The guarantor is allowed a tolerance of 4% in the sum of the protein fat before sample is declared deficient. Administrative officer: Commissioner of Agriculture and Commerce, Jackson, Miss.

MISSOURI

Registration is required annually by Jan. 1 for all feedingstuffs for livestock and poultry, including dog foods, except whole seeds or grains, unmixed meals made directly from entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir and milo, whole hays, straws, cottonseed hulls and corn stover, pure corn chops and pure ground ear corn, when not mixed with other materials, and other materials containing 60% or more of water. Registration fee is $2 for each brand for each calendar year or portion thereof. An inspection fee of 5¢ per ton is required, payable semi-annually (no tax tags or stamps). Every package must be labeled showing (a) net weight of the contents of the package, lot or parcel; (b) name, brand, or trademark; (c) name and principal address of manufacturer or person responsible for placing commodity on market; (d) minimum percentage of crude protein; (e) minimum percentage of crude fat; (f) maximum percentage of crude fiber; (g) minimum percentage of nitrogen-free extract; (h) specific (common) name of each ingredient used in its manufacture. Information (a) to (g) must be furnished on card or cards to purchasers who buy in bulk. Weight standards: 5, 8⅓, 10, 25, 50, 100, 150 and 200 lb. net. Information may appear either in the form of printing on package or tag attached to package. Materials prohibited are rice hulls, chaff, peanut hulls, dirt, ground or crushed corn cobs, sawdust, weed seeds the viability of which has not been destroyed except in poultry feeds, more than 5% of mineral substances except in mineral feeds, other materials of little or no feeding value, substances injurious to the health of domestic animals or poultry. Deposit of sample is not necessary unless requested. Administrative officer: State Department of Agriculture, Jefferson City, Mo.

MONTANA

Registration is required annually by Jan. 1 or before goods are offered for sale; fee $2 per brand. All materials for feeding animals or poultry require registration except unmixed whole seeds or grains, mixed or unmixed meals made directly from and consisting of entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir and milo, feeds from oil seeds and other seeds or grains; whole, chopped or ground hays, straws, corn stover and silage, when unmixed with other materials; feeds sold in small quantities and used only for household pets except dogs; wet beet pulp, barley sprout and whole screenings. Any brand of commercial feed offered for sale or sold must have printed on or attached by tag a label stating the net weight; brand or trade name; name and principal address of manufacturer or person responsible for placing commodity on the market; minimum percentage of crude protein; minimum percentage of crude fat; maximum percentage of crude fiber and name of each ingredient used in its manufacture. In the case of mixed feeds containing more than a total of 10% of one or more mineral ingredients, or other unmixed materials used as mineral supplements, and in the case of mineral feeds, mixed or unmixed, which are manufactured, represented and sold for primary purpose of supplying mineral deficiencies in rations for animals or poultry, and containing mineral ingredients generally regarded as dietary factors essential for normal nutrition, the minimum percentage of calcium (Ca), phosphorus (P), or iodine (I) and the maximum percentage of salt (NaCl), if the same be present. Provided that if no nutritional properties other than those of a mineral nature be claimed for a mineral feed product, the percentage of crude protein, crude fat and crude fiber may be omitted. In the case of feeds containing for their principal claim dietary factors in forms not expressible by the foregoing, such claims must be expressed in a manner

U. S. Farm Animal Population by States

Note: Preliminary report of livestock on farms (other animals not included) on Jan. 1, 1951 (000's omitted). Source: USDA

State and Division	Hogs, Including Pigs				Sheep and Lambs				Chickens				Turkeys			
	Average 1940-49	1950	1951 (prelim.) No.	% of 1950	Average 1940-49	1950	1951 (prelim.) No.	% of 1950	Average 1940-49	1950	1951 (prelim.) No.	% of 1950	Average 1940-49	1950	1951 (prelim.) No.	% of 1950
Maine	48	34	33	97	35	21	20	95	2,506	3,107	3,083	99	11	10	11	110
New Hampshire	20	13	11	85	9	7	7	100	2,377	2,709	2,619	97	13	18	19	106
Vermont	27	21	19	90	17	12	11	92	1,056	1,076	950	88	26	28	27	96
Massachusetts	103	94	92	98	8	8	9	112	5,121	5,578	5,816	104	63	70	84	120
Rhode Island	10	9	9	100	2	2	2	100	575	625	638	102	5	5	5	100
Connecticut	34	30	28	93	6	6	6	100	3,372	3,696	3,582	97	31	38	42	111
New York	283	212	193	91	287	178	182	102	15,982	17,759	17,821	100	112	146	161	110
New Jersey	101	72	69	96	8	10	10	100	9,938	13,201	14,634	111	49	66	62	95
Pennsylvania	788	704	704	100	308	217	221	102	23,218	26,837	27,558	103	162	174	184	106
North Atlantic	1,414	1,189	1,158	97	680	461	468	102	64,144	74,583	76,741	103	472	555	596	107
Ohio	3,304	3,176	3,430	108	1,852	1,140	1,128	99	21,540	19,586	19,215	98	135	126	171	136
Indiana	4,247	4,611	4,934	107	704	454	472	104	17,656	18,619	18,272	98	85	76	79	104
Illinois	6,067	6,285	6,976	111	784	576	625	109	24,149	22,937	22,005	96	129	106	111	105
Michigan	994	927	1,001	108	790	425	428	101	13,021	12,618	12,215	97	108	128	154	120
Wisconsin	1,855	1,733	1,941	112	403	255	255	100	17,571	17,954	17,594	99	98	65	72	111
Minnesota	3,912	3,498	3,813	109	1,224	736	737	100	27,164	28,471	28,097	99	378	204	208	102
Iowa	11,178	11,920	13,231	111	1,622	967	1,021	106	36,385	34,258	33,487	98	248	352	377	107
Missouri	4,036	4,429	4,916	111	1,528	1,184	1,214	103	25,117	24,124	22,410	93	355	455	500	110
North Dakota	615	413	421	102	882	393	375	97	5,596	4,773	4,511	95	191	44	44	100
South Dakota	1,689	1,442	1,543	107	1,777	860	893	104	9,424	9,036	8,664	96	186	44	53	120
Nebraska	2,747	2,499	2,999	120	993	588	615	139	16,009	14,307	13,783	96	156	89	67	75
Kansas	1,549	1,253	1,504	120	1,114	796	694	87	17,324	15,668	14,749	94	187	170	207	122
North Central	42,193	42,186	46,709	111	13,680	8,389	8,687	104	137,020	130,637	125,701	96	1,723	1,358	1,456	107
Delaware	39	37	40	108	2	2	2	100	1,352	1,107	1,054	95	21	15	18	120
Maryland	257	270	270	100	53	47	49	105	4,535	4,368	4,194	96	72	59	65	110
Virginia	779	752	797	106	334	293	299	102	10,278	10,006	9,503	95	172	220	275	125
West Virginia	278	256	246	96	353	296	311	105	4,511	4,314	3,888	90	42	64	64	100
North Carolina	1,204	1,120	1,131	101	46	35	39	111	11,892	11,087	11,117	100	54	63	66	105
South Carolina	679	663	617	93	5	3	3	100	5,253	4,764	4,586	96	78	90	86	95
Georgia	1,720	1,700	1,836	108	17	13	14	108	9,268	8,708	8,543	98	46	47	48	102
Florida	661	619	631	102	19	12	12	100	3,050	2,942	2,702	92	36	25	26	105
South Atlantic	5,617	5,417	5,568	103	858	701	729	104	50,040	47,296	45,587	96	521	583	648	111
Kentucky	1,531	1,668	1,668	100	912	700	749	107	12,334	11,796	10,700	91	62	67	70	105
Tennessee	1,372	1,371	1,385	101	353	265	270	102	11,942	11,019	9,744	88	39	36	29	80
Alabama	1,193	1,225	1,286	105	22	22	23	105	8,950	8,178	7,808	95	50	43	41	95
Mississippi	1,084	965	946	98	84	104	106	102	8,429	7,549	6,981	92	50	29	25	86
Arkansas	1,172	974	1,013	104	85	55	60	110	8,930	7,825	7,580	97	48	30	45	150
Louisiana	842	731	643	88	229	140	148	106	5,860	4,953	4,739	96	23	15	16	110
Oklahoma	1,036	835	843	101	279	145	145	100	12,932	11,102	10,364	93	198	120	130	108
Texas	2,129	1,701	1,786	105	9,264	6,756	7,119	105	31,629	27,384	25,884	95	859	755	755	100
South Central	10,358	9,470	9,570	101	11,238	8,187	8,620	105	101,006	89,806	83,800	93	1,328	1,095	1,111	101
Montana	242	192	171	89	3,247	1,743	1,870	107	2,259	2,054	1,924	94	33	15	16	109
Idaho	365	209	169	81	1,605	1,065	1,020	96	2,508	2,206	2,057	93	52	49	49	100
Wyoming	92	80	69	86	3,158	1,984	1,934	97	897	831	801	96	42	21	21	100
Colorado	410	351	316	90	2,364	1,743	1,645	94	3,949	3,483	3,139	90	149	70	55	78
New Mexico	100	73	69	95	1,909	1,371	1,384	101	1,245	1,129	1,038	92	25	18	20	110
Arizona	46	24	24	100	602	415	385	93	727	690	703	102	17	12	13	108
Utah	115	83	71	85	1,916	1,386	1,438	104	2,962	2,427	2,205	91	182	127	67	53
Nevada	26	28	26	93	613	457	465	102	352	300	306	102	10	4	4	100
Washington	261	155	132	85	511	323	337	104	6,094	5,573	5,550	100	258	281	183	65
Oregon	249	166	141	85	1,191	689	656	95	3,769	3,584	2,397	95	502	370	333	90
California	857	879	835	95	2,571	1,819	1,867	103	18,515	23,416	23,336	100	1,092	927	816	88
Western	2,763	2,240	2,023	90	19,687	13,005	13,001	100	43,219	46,692	45,456	97	2,362	1,894	1,577	83
United States	62,346	60,502	65,028	107	46,143	30,743	31,505	102	489,368	480,834	466,686	97	6,961	5,986	5,975	100

designated and in effect at the time by resolutions adopted by the Association of American Feed Control Officials. In all cases the true percentage of salt must be indicated. Deposit of samples is not required except on request accompanied by affidavit that it is a fair average sample of material it represents. Administrative officer: Commissioner of Agriculture, Labor and Industry, Helena.

NEBRASKA

Annual registration is required before feed is offered for sale; fee $1 per brand. Inspection fee is 10¢ per ton payable Jan. 15, May 15 and Sept. 15. Deposit of samples is required together with affidavit that it is truly representative of material. All feedingstuffs used for feeding livestock and poultry require registration except whole seeds or grains, whole unground hays, straws, cottonseed hulls and corn stover, when unmixed with other materials. Unmixed meals or chops made from whole grain to which nothing has been added or abstracted, when exchanged for whole grain of a like kind when manufactured, sold and delivered on premises of manufacturer, direct to the consumer. Unadulterated wheat, rye and buckwheat bran, or shorts require registration but no inspection fee. Each package must be labeled, either in form of printing on package or tag attached to the package, showing net weight; name, brand or trademark; name and principal address of manufacturer; minimum percentage of crude protein and crude fat; maximum percentage of crude fiber; minimum percentage of nitrogen-free extract; specific name of each ingredient; maximum amount of each foreign mineral ingredient; kind and maximum percentage of weed seeds, peanut shells, corn cob meal, oat hulls, oat clippings, flax plant by-product, or other materials of a similar nature; amount of limestone or calcium product. Administrative officer: Director, Department of Agriculture and Inspection, Lincoln.

NEVADA

Although no specific law exists, products bearing a guaranteed analysis must comply with such analysis or be in violation of the misbranding provisions of the State and Food Drug Law which requires that each package be labeled with a statement of net weight and name and place of business of manufacturer, packer or distributor. No registration is required. Administrative officer: Public Service Department, Division of Food & Drug Control, University of Nevada, Reno.

NEW HAMPSHIRE

Annual registration is required during December or before goods are offered for sale; fee $15 for each brand for each calendar year or portion thereof. All feedingstuffs used for feeding wild animals and birds kept in captivity, domestic animals and poultry must be registered except hay, straw, whole seed, unmixed meals made directly from the entire grains of wheat, rye, barley, oats, Indian corn, broom corn, buckwheat, and mixed grains, ingredients of which may be readily determined. No inspection fee or tags. Label, either in the form of printing on packages or on tag attached to packages, must state net weight of package; name, brand or trademark; name and address of manufacturer or shipper; place of manufacture; minimum percentages of crude protein and crude fat, and maximum percentage of crude fiber; names of ingredients (in bold type) if a compounded feed. Deposit of samples is not necessary unless requested. Administrative officer: Commissioner of Agriculture, Concord.

NEW JERSEY

Registration is required annually Jan. 1 or before offered for sale; fee, 50¢ per brand. On July 1 and Jan. 1 all firms or persons engaged in manufacture and sale of concentrated feedingstuffs must file with the administrative officer a certified statement, giving number of tons sold during preceding six months and pay inspection fee of 4¢ per ton, based upon said statement. Blanks for preparing such statement will be furnished by the administrative officer. All feeds must be registered, except whole seeds or grain sold as such and unmixed meals made directly from and composed of entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir and milo, whole hays, straws, cottonseed hulls, and corn stover when unmixed with other materials. Label, either in form of printing on package or tag attached to package, must show net weight; name, brand or trademark; manufacturer's or dealer's name and address, minimum percentage of crude protein and crude fat,

Range of Millfeed Prices at Principal Cities in U.S.

Note: High and low millfeed prices by months, basis carload lots, prompt delivery, per ton, in 100-lb. sacks. **Source: The Northwestern Miller**

	Chicago		Minneapolis		Kansas City	
	Spring		Spring		Hard winter	
1950—	Bran	Std. midds.	Bran	Std. midds.	Bran	Flour midds.
January ..	$41.00@46.50	$42.50@46.50	$39.50@43.00	$40.50@43.00	$36.25@40.50	$38.50@43.00
February ..	40.50@47.00	41.00@47.50	38.50@43.50	39.00@44.00	35.00@40.00	38.00@45.50
March	44.50@52.50	48.50@53.50	42.00@48.00	45.00@49.00	39.75@44.75	44.50@50.00
April	49.00@60.00	51.00@63.50	48.50@57.50	48.50@59.00	43.00@55.00	48.50@59.75
May	49.00@61.00	55.00@67.25	45.50@69.00	52.00@65.00	42.25@57.00	48.00@66.50
June	48.00@51.00	53.00@61.00	45.50@48.00	51.00@57.50	42.50@46.00	51.50@58.50
July	53.00@58.00	62.00@67.50	49.50@54.50	60.00@64.50	47.50@53.75	56.00@63.50
August ...	45.00@49.00	47.00@60.00	41.50@48.00	43.00@58.50	39.00@44.75	47.00@55.50
September.	46.00@48.00	49.00@51.00	44.00@46.50	45.50@48.50	39.75@42.50	48.00@51.00
October ...	45.00@48.50	48.50@51.00	43.00@46.00	45.00@49.00	39.50@43.00	45.75@49.50
November .	47.50@50.00	50.00@52.00	46.50@48.50	47.50@49.50	42.75@45.50	49.50@54.50
December .	48.50@53.50	51.00@55.00	48.50@52.00	49.00@52.50	43.75@48.75	47.50@52.75

	Chicago		Minneapolis		Kansas City	
	Spring		Spring		Hard winter	
1949—	Bran	Std. midds.	Bran	Std. midds.	Bran	Flour midds.
January ..	$52.00@54.00	$52.00@53.50	$51.00@52.50	$50.00@52.00	$47.00@49.50	$47.50@50.25
February .	45.00@51.00	45.00@50.50	43.00@48.50	43.00@47.50	39.75@46.00	43.00@48.50
March	51.00@61.75	51.50@57.50	49.00@57.50	50.00@53.00	45.00@55.25	48.00@55.00
April	59.50@66.00	60.00@66.50	51.00@63.00	57.00@64.00	47.00@60.00	54.00@61.00
May	52.50@58.00	54.00@61.50	50.00@55.00	51.00@58.50	46.50@52.00	47.50@62.00
June	43.50@48.75	48.50@60.00	42.50@46.00	47.00@56.50	38.00@41.50	46.50@52.50
July	45.50@49.50	49.00@54.50	41.00@47.00	46.00@49.00	38.00@44.50	44.00@48.00
August ...	41.00@46.50	44.50@50.00	38.50@43.50	41.00@46.00	35.00@40.50	42.50@47.00
September.	42.50@46.00	44.50@53.50	40.50@46.50	43.00@53.50	36.50@45.00	42.50@52.00
October ..	41.50@44.50	44.00@50.50	38.50@41.00	41.00@48.00	35.50@39.00	43.00@45.75
November.	43.00@47.00	43.50@48.50	40.00@43.00	40.00@45.00	37.00@40.50	42.75@44.00
December .	46.50@49.00	47.00@50.50	43.00@46.50	43.00@47.50	40.25@44.00	41.00@46.75

	Chicago		Minneapolis		Kansas City	
	Spring		Spring		Hard winter	
1948—	Bran	Std. midds.	Bran	Std. midds.	Bran	Flour midds.
January ..	$76.50@89.50	$81.50@92.00	$75.00@86.50	$78.00@88.00	$72.00@86.00	$76.00@89.50
February .	59.50@79.00	61.00@85.00	58.00@77.00	59.00@81.00	55.00@72.00	56.00@79.00
March	64.00@72.00	66.00@81.00	61.00@71.50	63.00@79.50	58.00@71.50	71.00@77.00
April	71.50@83.00	74.00@82.00	69.50@80.00	74.00@80.00	67.00@78.50	69.00@80.50
May	71.00@75.00	76.00@82.50	68.50@71.00	73.00@79.00	65.00@69.00	71.50@79.50
June	66.50@69.00	81.00@85.00	62.00@65.50	78.00@79.50	59.50@63.50	76.00@79.00
July	48.50@61.50	56.00@78.00	46.00@57.00	53.00@76.00	43.50@54.50	52.00@66.50
August ...	41.75@45.25	46.00@49.50	41.00@45.50	46.00@45.50	36.00@41.00	41.50@50.50
September	43.25@45.75	51.00@56.50	41.50@44.00	47.00@54.00	37.50@40.00	49.50@60.50
October ..	41.50@50.00	48.00@52.00	39.50@47.50	46.00@48.00	36.50@41.50	49.50@51.50
November	48.50@54.50	50.50@55.00	45.00@51.00	45.00@52.00	44.00@49.50	48.50@51.50
December	49.00@54.50	51.00@55.50	47.50@51.50	48.00@52.50	43.00@49.50	43.75@51.00

	St. Louis		Buffalo	
	Soft winter		Spring	
1950—	Bran	Flour midds.	Bran	Std. midds.
January	$43.25@45.00	$45.00@47.25	$44.00@48.00	$43.00@47.00
February	40.00@43.50	42.00@48.50	46.00@49.00	45.00@48.00
March	43.50@48.00	48.50@52.25	49.00@52.00	48.50@53.50
April	47.50@56.00	53.50@61.50	51.50@58.50	52.50@60.50
May	49.00@62.50	55.00@67.25	55.00@66.00	58.50@71.00
June	46.25@50.75	52.75@62.00	50.50@55.50	53.00@62.50
July	41.25@55.50	44.75@66.50	56.00@75.00	65.50@69.00
August	44.25@52.50	47.00@65.50	46.50@55.50	45.00@61.50
September	45.00@47.00	51.50@54.50	47.50@52.50	51.00@57.00
October	43.75@46.50	51.00@53.00	48.00@52.00	50.50@56.50
November	47.00@48.50	53.25@55.50	52.00@53.50	52.00@53.50
December	47.50@50.50	51.50@55.00	53.00@57.50	53.00@59.00

	St. Louis		Buffalo	
	Soft winter		Spring	
1949—	Bran	Flour midds.	Bran	Std. midds.
January	$50.50@53.00	$51.60@53.75	$55.00@57.50	$54.00@57.50
February	42.75@50.25	48.25@51.75	46.00@54.50	45.00@53.00
March	46.75@57.75	51.25@56.25	51.50@60.50	52.50@58.00
April	57.75@64.75	57.75@65.75	61.50@69.50	59.50@69.50
May	52.25@57.75	54.75@67.25	56.00@62.00	59.00@64.00
June	43.25@50.25	49.75@60.75	49.00@54.00	52.00@62.00
July	42.75@48.75	47.75@52.25	49.00@52.50	51.00@60.00
August	38.75@44.75	45.75@50.25	46.00@48.50	47.00@52.50
September	40.25@45.00	46.25@57.00	45.00@48.50	46.50@55.00
October	40.50@43.00	47.50@51.50	44.50@47.00	45.50@53.00
November	41.50@45.25	46.00@48.25	45.00@50.00	45.50@52.00
December	44.50@47.25	45.50@50.00	49.50@52.00	49.50@53.50

	St. Louis		Buffalo	
	Soft winter		Spring	
1948—	Bran	Flour midds.	Bran	Std. midds.
January	$74.25@88.00	$80.50@91.50	$79.00@92.00	$82.00@94.00
February	59.50@83.50	62.00@87.00	65.00@90.00	66.00@90.00
March	62.50@75.00	68.00@82.50	64.00@77.00	63.00@84.00
April	71.50@81.50	75.50@83.00	76.00@86.00	82.00@88.00
May	69.00@75.00	74.50@83.00	78.00@81.00	81.00@83.00
June	64.00@69.00	80.50@84.50	69.50@77.50	83.00@85.00
July	45.00@61.00	55.50@77.00	51.00@69.00	60.00@84.00
August	41.00@44.00	42.00@54.00	46.00@52.00	49.00@55.00
September	39.50@44.00	53.00@62.50	46.50@48.50	50.50@58.50
October	41.00@47.00	51.50@57.50	45.00@50.00	50.00@56.50
November	46.50@54.00	52.10@55.10	52.00@57.00	53.00@58.00
December	48.60@52.00	49.60@54.10	52.00@58.00	52.50@59.00

maximum percentage of crude fiber, names of ingredients. A tag or tags must not be attached to bags by means of wire or with metal fasteners. Deposit of samples is not necessary unless requested. Administrative officer: State Chemist, New Jersey Agricultural Experiment Station, New Brunswick.

NEW MEXICO

Registration is permanent; no fee. Inspection fee 12¢ per ton. All feeds intended for feeding livestock and poultry must be registered, except whole seeds or grains, whole hays, straws, cottonseed hulls, corn stover when unmixed with other materials; all other materials containing 60% or more of water. Label, either on tag or printed on package, must show net weight, name, brand or trademark; name and address of manufacturer or person responsible for placing commodity on market; minimum percentage of crude protein and crude fat; maximum percentage of crude fiber; percentage of nitrogen-free extract; specific names of ingredients. Registration sample (1 lb.) is required. Sufficient tax tags or stamps must be delivered to cover bulk sales and label statement. Administrative officer: Deputy in Charge, Feed and Fertilizer Control Office, State College.

NEW YORK

Registration is required annually on or before Jan. 1 or before goods are offered for sale. License fee is $25 for each brand for wholesalers (permits unlimited sales at wholesale); $10 for each brand for retailers (permits sales at retail to ultimate consumer at only one place in state, which place being designated on license). Registration is required for linseed meal, cottonseed meals, pea meals, bean meals, peanut meals, coconut meals, gluten meals, velvet bean meals, soybean meals, dried yeast grains, dried vinegar grains, corn germ meal, feeding molasses, gluten feeds, cottonseed feeds, maize feeds, velvet bean feeds, peanut feeds, dried distillers' grains, dried brewers' grains, malt sprouts, except as hereinafter provided, hominy feeds, rice meals, corn and oat chops, corn feed meal, corn bran, corn and cob meal, wheat bran, wheat middlings, wheat feed, rye feed, rye middlings, buckwheat middlings and buckwheat feed, ground beef or fish scraps, meat meals, meat and bone meals mixed, dried blood, milk by-product, mixed feeds, compounded feeds, condimental stock and poultry feeds, proprietary or trademark stock and poultry feeds, and all other materials of a similar nature. Those not requiring registration are materials defined as roughages, whole seeds, pure whole grains ground together, unmixed meals made directly from the entire grains of wheat, rye, barley, oats, corn, buckwheat and broom corn, malt sprouts when sold as such by the maltster at retail, ground or cracked bone not mixed with any other substance, poultry feeds consisting of whole or whole and cracked grains mixed together, with or without grit, oyster shell or charcoal, when all the ingredients may be identified with the naked eye. Materials prohibited in mixed feeds are: peanut shells, peanut hulls, rice hulls, rice chaff, rice straw, humus, peat, sphagnum moss, coffee hulls, chaff, sawdust, sand, ground corn cobs, except in corn and cob meal unmixed with other materials, ground coconut shells, any substance injurious to health of animals or having no feeding value, poultry feeds containing in excess of 5% in the aggregate of gravel, grit, oyster shells and charcoal or more than 5% in the aggregate of any two or more of them, feedingstuffs containing cockle seed, mustard seed, or other noxious or poisonous weed seed, the viability of which has not been destroyed. (Authority granted to permit a uniform and reasonable tolerance in the amount of such seeds). Tags are not necessary on light colored packages upon which required statement is plainly printed. If tags are used type must be not smaller than 8-point. Each package must be labeled showing net weight of contents except in case of malt sprouts sold in packages containing uneven weights; name, brand or trademark; name and principal address of manufacturer or person responsible for placing commodity on market; composition expressed in following terms: (a) minimum percentage of crude protein, (b) minimum percentage of crude fat, (c) maximum percentage of crude fiber, provided that the percentage of crude fiber may be omitted if it does not exceed 5%, (d) if a compounded feed, name of each ingredient contained therein, but if any ingredient classified under concentrated commercial feedingstuffs be present in a smaller amount than 5% of the whole, the minimum percentage or weight of such ingredient must be given as part of the statement as herein provided, (e) if artificially colored, name of material used for such purpose, (f) in the case of meat products containing more than 22% of tri-calcium phosphate, word "bone" must appear as a part of the brand name, or the presence of bone must be otherwise plainly indicated, (g) in case of molasses, minimum percentage of sugar, (h) in the case of compounded feeds containing roughages, percentage of total roughages when the total fiber content exceeds 10% with an allowance of 2% of fiber content for variation, (i) in case of mineral or inorganic compounds, mixed or unmixed, such as calcium phosphate, calcium carbonate or any other materials of similar inorganic character, the minimum percentage of each ingredient which is present in amounts greater than 5% of the whole. Metal fasteners with sharp points must not be used to attach tags. Administrative officer: Commissioner of Agriculture and Markets, Albany.

NORTH CAROLINA

All manufactured or mixed feeds including single ingredient feeds if ground or processed, are required to be registered before being offered for sale and annually thereafter, on or before Jan. 1. Fee is $1 per brand sold in packages greater than 5 lb.; $25 per brand if sold in packages of 5 lb. or less. The tonnage report must be made monthly and inspection fee due and payable monthly on the 10th of each month. Inspection fee, 25¢ a ton on each brand sold in packages of more than 5 lb. Either tax tags or stamps will be supplied by department of agriculture. On such brands as are sold in packages of 5 lb. or less, there is no in-

spection tax. Each package must be labeled, either printed on bag or tag attached thereto, to show net weight of contents, name, brand or trademark; name and address of manufacturer, jobber or importer; the names of ingredients; maximum percentage of crude fiber; minimum percentage of crude protein; carbohydrates, crude fat. Standard weight packages: 5 lb. or less, 10, 25, 50, 75, 100, 125, 150, 175 and 200 lb. Metal fasteners prohibited. Administrative officer: Commissioner of Agriculture, Raleigh.

NORTH DAKOTA

Registration is permanent and is required for all feedingstuffs used for feeding livestock and poultry except whole seeds and grains, unmixed meals made directly from and consisting of entire grains of corn, wheat, rye, barley, oats, buckwheat and broom corn, and whole hays, straws, ensilage and corn stover when unmixed with other materials. No registration fee; on feeds sold in cans or small packages of less than 10 lb., registration fee of $15 is optional in lieu of paying 20¢ per ton inspection fee which is payable Jan. 15 and July 15 on tonnage affidavit. Semi-annual tonnage affidavit is basis of inspection tax. Each package must bear tag or label showing net weight of contents; name, brand or trademark; name and principal address of manufacturer or importer; minimum percentage of crude fat and crude proteins; and maximum of crude fiber; names of ingredients; in case of mineral feeds and commercial feeds containing more than a total of 5% of one or more mineral ingredients used as mineral supplements, minimum percentum of phosphorus, calcium and iodine, omitting fat, protein and fiber; in case of vitamin supplements or carriers potency in terms of vitamin unit per weight. Deposit of samples is not necessary unless requested. Administrative officer: State Food Commissioner and Chemist, Bismarck.

OHIO

Registration is required annually or before offered for sale; fee $1 per brand. Inspection fee, 10¢ per ton payable semi-annually on sworn statement of tonnage. All feeds used for livestock, dog, fox, fish and poultry; linseed oil meal, linseed oil cake, cottonseed oil meal, cottonseed oil cake, pea meal, soybean oil meal, coconut meal, rice meal, rice bran, rice polish, peanut oil meal, bean meal, gluten meal, gluten feeds, dried brewers' grains, dried distillers' grains, dried beet refuse, malt sprouts, yeast feeds, hominy feeds, cerealine feeds, oat feeds, mixed feeds, alfalfa meals, molasses feeds, sugar feeds, buckwheat bran, buckwheat hulls, buckwheat middlings, corn and corn cob meal, crushed ear corn, corn bran, corn siftings, wheat bran with or without screenings, wheat middlings with or without screenings, ground or unground mixed feeds made from seeds or grains or grain offal, clover meals, dried blood, blood meal, tankage, meat scraps, beef scraps, meat and bone meal, meat cracklings, raw or steamed bone meal, fish scraps, fish meal, dried buttermilk, condensed buttermilk, dried skim milk, condensed skim milk or other animal, marine or vegetable by-products. No registration is required for hay, straw, whole seeds, whole grains or unmixed meals made from corn, oats, wheat, rye, barley, buckwheat or other whole standard grains. Label, either in form of printing on package or tag attached thereto, must show net weight; name, brand or trademark, name and principal address of manufacturer or person responsible for placing the commodity on the market; minimum percentage of crude protein, minimum percentage of crude fat, maximum percentage of crude fiber, specific name of each ingredient. Special statement is necessary for condimental, mineral and vitamin carrying feeds containing inorganic ingredients. Administrative officer: Chief, Division of Plant Industry, Department of Agriculture, Columbus.

OKLAHOMA

Registration is required for each brand before offering for sale and is permanent unless cancelled; no fee. Inspection fee 5¢ per ton, payable quarterly on sworn statement of tonnage. Materials which require registration are wheat bran, wheat shorts, linseed meals, cottonseed meals, pea meals, coconut meals, gluten meals, gluten feeds, maize feeds, starch feeds, sugar beets, dried brewers' grains, malt sprouts, hominy feeds, cereal feeds, corn and oat chops, rice meals, rice bran, rice polish, rice hulls, alfalfa meals, oat feeds, ground beef or mixed fish feeds, minerals and mineral mixtures, and all other materials of similar nature not specifically excluded. Registration is not required of hay and straw, whole seed or grains of wheat, barley, rye oats, Indian corn, rice, buckwheat or broom corn or any other whole or unground grain or seed.

U.S. Feed Grain Supply, Production & Carryover

Note: U.S. total feed grain supplies by crop year. **Source: USDA**

	Corn				Oats			
	Production	Carryover Oct. 1	Imports	Total supply	Production	Carryover July 1	Imports	Total supply
Year beginning	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil bu.	Mil. bu.	Mil. bu.
Average, 1937-41 ...	2,576	469	1	3,046	1,121	173	5	1,309
1950 .....*3,131	859	..	3,900	1,465	218	†20	1,703
1949	3,379	825	1	4,205	1,329	295	20	1,644
1948	3,682	125	1	3,808	1,493	184	19	1,696
1947	2,384	286	1	2,671	1,199	276	2	1,477
1946	3,250	173	1	3,424	1,492	293	1	1,791
1945	2,881	315	1	3,197	1,536	234	24	1,794
1944	3,088	231	6	3,325	1,149	208	69	1,426
1943	2,966	384	4	3,354	1,140	259	81	1,480
1942	3,068	491	1	3,560	1,343	194	59	1,596

	Barley				Sorghum grains			Total
	Production	Carryover July 1	Imports	Total supply	Production	Carryover Oct. 1	Tot. supply	feed gr'n supply
Year beginning	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. ton
Average, 1937-41 ...	286	44	3	333	78	...	78	116.4
1950*	302	81	†20	403	237	59	296	156.9
1949	237	101	18	356	153	19	172	157.4
1948	316	52	12	380	132	7	139	146.8
1947	281	56	1	338	96	7	103	‡109.3
1946	262	59	4	325	107	...	107	135.3
1945	267	95	6	368	97	...	97	129.8
1944	276	76	38	390	185	...	185	130.5
1943	323	121	41	485	110	...	110	132.8
1942	429	70	27	526	110	...	110	140.9

*Preliminary. †Tentative estimates, based on indications in December. ‡Excluding carryover of sorghum grains.

Each bag or container of commercial feeds must have "plainly printed" statement on bag or on tag attached, to show net weight of contents; brand or trade name of feed, name and address of manufacturer or importer, minimum percentage of crude protein and crude fat, maximum percentage of crude fiber; names of ingredients. All mineral feeds mixed or unmixed, except salt, must have a plainly printed statement on the tag, label, or bag to show the same information required above, except the guaranteed analysis must be expressed as maximum percentage of calcium (Ca), minimum percentage of phosphorus (P), minimum percentage of iodine (I), and maximum percentage of salt (NaCl). Any commercial feed to which more than 5% minerals have been added must have a plainly printed statement on the tag, label or bag to show all the requirements mentioned above. All preparations which are sold or represented for the cure, mitigation or prevention of disease are classified as drugs, medicines, or specifies and are not subject to registration under the Oklahoma Feed Law. However, when same is used in commercial feeds that may be potentially dangerous to the health of stock or poultry, full information to protect the purchaser must be given. Separate tags must be attached to show adequate directions for use and also adequate warnings. All labels or tags must be "clearly printed and distinct in type" so as to be easily read. The use of labels and tags printed with rubber stamps is prohibited. Deposit of samples is not required unless requested. Administrative officer: State Board of Agriculture, Oklahoma City.

OREGON

Registration is required annually by Jan. 1 or before goods are offered for sale; fee of $10 for each brand if registered on or after July 1, fee $5 for balance of year. All materials intended for use in feeding or mixing for livestock and/or fowls, or represented by any seller or distributor as suitable for such purpose, except whole seeds, or grains; unmixed meals made directly from and consisting of the entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed and grain sorghums; unground hays and straws; unground and unmixed screenings, cottonseed hulls, corn stover, oat hulls; feed molasses when unmixed with other materials; all other materials containing 60% or more of water. Label, either in form of printing on package or tag attached, must state net weight; name, brand or trademark; name and address of manufacturer or dealer; minimum percentage of crude protein and fat; maximum percentage of crude fiber and ash (maximum of 12% on fiber except on single feedingstuffs containing more than 12% natural fiber); specific name of each ingredient; in the case of poultry feed, maximum percentage of grit and shell and other mineral matter. Deposit of samples is not necessary unless requested. Administrative officer: Division of Foods and Dairies, State Department of Agriculture, Salem.

PENNSYLVANIA

Registration fee is $5 for each new brand. Registration of old brands is based on number of tons sold during last preceding calendar year, as follows: 150 tons and less $5; more than 150 tons and less than 300 tons, $10; more than 300 tons and less than 500 tons, $15; more than 500 tons, $25. If no sworn statement of tonnage sales is made by manufacturer, then brands can be registered at $25 each; no inspection fee. Pure wheat, rye and buckwheat by-products; pure corn meal, made by grinding and bolting corn, and pure corn and oats chop can be registered annually at $5 per brand, no tonnage sales being required. Materials requiring registration are; cottonseed oil meals, cottonseed feeds, linseed meals, linseed oil meals, coconut oil meals, peanut oil meals, corn oil meals, corn gluten feeds, corn gluten meals, corn bran, maize feeds, starch feeds, barley middlings, barley feeds, pea meals, bean meals, sugar feeds, dried distillers' grains, dried brewers' grains, malt sprouts, dried malt grains, dried vinegar grains, wheat bran, wheat middlings, wheat mixed feeds, rye bran, rye middlings, rye mixed feeds, buckwheat brans, buckwheat middlings, buckwheat feeds, hominy feeds, cerealine feeds, maizeline feeds, rice meals, dried beet pulp, dried molasses beet pulp, feed molasses, molasses grains, molasses feeds, clover meal, alfalfa meal and feeds, semi-solid or dried buttermilk, also semi-solid

Canadian Millfeed Output

Note: In tons. Source: Dominion Bureau of Statistics.

	1949-50	1948-49	1947-48	1946-47
Aug.	66,262	87,100	85,648	72,320
Sept.	64,071	75,395	87,393	77,376
Oct.	63,872	69,131	86,847	83,587
Nov.	66,152	67,023	76,527	85,708
Dec.	55,387	58,348	59,951	80,577
Jan.	53,010	49,614	67,774	83,543
Feb.	54,016	48,967	63,310	73,874
March	63,398	56,429	66,960	79,671
April	56,272	53,723	71,381	81,179
May	57,688	52,634	63,140	89,825
June	55,883	56,005	69,870	84,783
July	43,466	49,097	67,965	78,209
	693,507	693,466	868,866	970,652

Canadian Millfeed Exports

Note: Bran, shorts and midds., in cwt. (100 lb.). Source: Dominion Bureau of Statistics.

Br. Empire—	1949-50	1948-49	1947-48
Bermuda	11,030	18,962	30,514
British Guiana	600	30,309	3,183
Br. West Indies..	30,126	43,180	56,020
Hong Kong	2,000	2,404	.....
Newfoundland ..	.....	10,340	19,102
Foreign countries—			
St. Pierre and Miquelon	2,080	920	2,618
Iceland	.....	29,950	4,900
Netherlands	.....	1,102	.....
U. S.	992,522	953,088	495,702
Alaska	.....	25	.....
Hawaii	42,897	22,090	.....
China	26,200	.....	.....
Cuba	600	.....	.....
Italy	5	.....	.....
Venezuela	105	.....	.....
Totals	1,107,875	1,079,379	610,039

Corn, Oats, Barley and Grain Sorghum Prices

Note: October, 1935, to September, 1940=100 **Source USDA**

Season	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Aver.
1950-51.....	207.5	219.9	232.0	240.3	...	...	...	...	...	...	...	...	...
1949-50.....	173.8	173.5	184.0	184.5	185.2	190.6	201.5	211.3	211.3	218.6	211.6	210.9	196.4
1948-49.....	207.8	201.3	205.6	203.1	183.2	193.3	197.3	187.5	189.2	192.7	181.3	181.6	193.7
1947-48.....	334.1	344.6	367.0	378.2	319.1	326.8	325.4	322.3	320.7	284.6	262.2	243.1	319.0
1946-47.....	254.8	210.4	194.8	192.0	200.9	244.0	248.3	251.1	285.4	294.4	322.3	343.0	253.5
1945-46.....	170.3	172.7	173.6	173.9	174.1	179.0	178.7	202.1	209.9	293.3	262.8	257.2	204.0
1944-45.....	164.9	157.1	164.6	168.2	159.0	170.0	166.6	165.2	169.4	170.3	167.8	168.3	166.3
1943-44.....	161.1	161.3	173.2	172.6	172.6	172.6	172.8	172.9	172.7	171.1	168.7	164.0	169.6
1942-43.....	111.9	116.2	126.1	137.2	138.9	145.5	149.8	153.6	156.0	158.3	158.5	160.2	142.7
1941-42.....	99.8	103.1	109.2	113.2	117.0	116.9	118.0	121.1	119.3	119.2	118.4	118.2	114.9
1940-41.....	87.8	88.6	88.4	87.3	85.8	89.2	94.8	98.2	99.4	99.0	100.0	105.8	93.4
1939-40.....	73.6	76.5	82.7	86.6	86.2	86.3	92.3	96.3	92.4	90.1	89.6	88.3	86.7
1938-39.....	64.5	66.8	71.5	72.8	68.7	68.6	70.7	74.4	74.7	64.1	67.0	81.9	70.8
1937-38.....	90.0	79.4	81.3	85.2	82.2	81.7	81.8	80.1	78.1	79.5	71.1	71.5	80.2
1936-37.....	150.2	153.2	156.2	163.6	163.8	165.6	156.4	153.2	146.6	161.6	141.0	130.6	160.1
1935-36.....	104.1	88.5	83.1	86.4	85.8	86.4	87.0	85.5	86.9	121.1	156.1	153.4	102.2

Compiled by Market News and Services Division, Grain Branch, Production and Marketing Administration.

Minneapolis Linseed Mills

Archer-Daniels-Midland Co. — Yearly capacity: 15,000,000 bu. linseed (flaxseed); 714,000 drums oil, 1,277,000 tons meals.

Falk & Co., Inc., Northwest Linseed Div.— Yearly capacity: 2,500,000 bu. flax, 125,000 bbl. oil, 50,000 tons cake.

Spencer Kellogg & Sons, Inc.—Yearly capacity: 8,400,000 bu. flax, 420,000 bbl. oil, 130,000 tons cake.

Minnesota Linseed Oil Co.—Fridley plant; yearly capacity: 5,000,000 bu. flax; 250,000 bbl. oil, 100,000 tons meal.

Average Value of Livestock

Source: USDA

	Horses	Milk cows	Sheep
1951.....	$43.40	$218.00	*$26.40
1950.....	45.80	177.00	*17.80
1949.....	52.30	193.00	*17.00
1948.....	55.50	164.00	*15.00
1947.....	59.20	145.00	*12.20
1946.....	57.40	112.00	9.60
1945.....	64.90	99.40	8.58
1944.....	78.00	102.00	8.72
1943.....	80.00	99.50	9.68
1942.....	64.75	77.89	8.61
1941.....	68.27	60.90	6.78
1940.....	77.34	57.28	6.31
1939.....	84.34	55.68	5.75
1938.....	96.56	54.44	6.12
1937.....	99.18	58.39	6.62
1936.....	96.82	49.27	6.38
1935.....	77.05	30.17	4.31

*Stock sheep.

	Mules	All cattle	Swine
1951.....	$82.00	$160.00	$33.20
1950.....	99.40	123.00	27.10
1949.....	117.00	135.00	38.20
1948.....	133.00	116.00	42.80
1947.....	141.00	97.40	36.00
1946.....	133.00	76.20	23.90
1945.....	134.00	66.90	20.60
1944.....	143.00	68.70	17.50
1943.....	128.00	69.60	22.50
1942.....	107.51	55.08	15.62
1941.....	107.21	43.26	8.34
1940.....	115.83	40.58	7.78
1939.....	117.64	38.45	11.21
1938.....	122.65	36.58	11.26
1937.....	129.93	34.06	11.89
1936.....	120.36	34.09	12.72
1935.....	99.34	20.22	6.31

or dried skimmed milk, ground beef scraps, ground fish scraps, oil meals, or residues from extracted seeds and grains, mixtures of whole grains and all other mixtures bearing distinctive brand or trade names, and all mixtures of similar nature used for feeding domestic animals including poultry; condimental stock and poultry foods and patented, proprietary or trademarked stock and poultry foods possessing nutritive value combined with medicinal properties, and all mixed feeds (other than pure grains, which are not sold as mixtures bearing distinctive names, but which are sold as pure grains). Materials not requiring registration are hays, straws and corn stover, ensilage, whole grains, unmixed meals made directly from entire grains of wheat, rye, barley, oats, Indian corn, ear corn, kafir corn, broom corn, sugar cane, sorghum, rice, buckwheat and flaxseed, not mixed with other substances, but sold separately as distinct articles of commerce, nor pure grains mixed together, nor being mixed with any other substance, nor having distinctive brand or trade names but sold as mixtures of pure whole grains. The use or addition to any feedingstuffs of oat hulls, oat feed, oatmeal by-product, clipped oat by-product, flax plant refuse, elevator chaff, cottonseed hulls, ground corn stalks, cocoa shells, cocoanut shells, is permitted and such feeds will not be considered as adulterated with these materials provided the maximum fiber shall not be found, upon analysis, to exceed 11% plus 10% tolerance, making a total of 12.1%. Label, either in form of printing on package or tag attached, must show net weight of contents; name, brand or trademark; name and address of manufacturer or importer; minimum percentage for crude protein and crude fat; and maximum percentage of crude fiber; minimum percentage of total sugar in case of feed molasses; minimum percentage of total solids in case of semi-solid buttermilk. Metal fasteners of all kinds prohibited. Administrative officer: Director, Bureau of Foods and Chemistry, Department of Agriculture, Harrisburg.

RHODE ISLAND

Registration is required annually for each brand; fee $10 per brand for each calendar year or portion thereof; no inspection fee. All feeds used for feeding animals and birds must be registered, except unmixed whole seeds or grains; unmixed meals made directly from and consisting of entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir, milo and other seeds or grains; whole hays, straws, cottonseed hulls, corn stover and cobs when unmixed; feed mixed according to formula furnished by consumer for his own use and not sold as commercial brand. Label, either in form of printing on package or tag attached to package, must show: net weight, name, brand or trademark, name and address of manufacturer or person placing commodity on market, minimum percentage of crude protein and crude fat, maximum percentage of crude fiber, name of each ingredient, maximum percentage of salt if over 2%. Special label requirements for mineral feeds. Feeds sold for mixing purposes only exempt from fee. Deposit of samples is not required unless requested. Administrative officer: Chief, Bureau of Markets, Department of Agriculture and Conservation, Providence.

SOUTH CAROLINA

Registration is required on Jan. 1 annually; no fee. Inspection fee 25¢ ton, payable either by stamps attached to each package or monthly on sworn statement of shipments. Feed for "mixing purposes only" is exempt if so labeled. All feeds, used for feeding livestock and poultry, must be registered, except whole hays, straws, cottonseed hulls, and corn stover when not mixed with other materials; whole seeds or grains of cereals when not mixed with other materials and when not in damaged condition as determined by inspection to be unfit for food purposes, mixed or unmixed. Label must show weight of package, name, brand or trademark; name and address of manufacturer, jobber or importer; minimum percentage of crude protein and crude fat; maximum percentage of crude fiber; names of ingredients. Information may appear either in the form of printing on package or tag attached to package, the latter being preferable. Printing must be in black ink (rubber stamp not recognized); tag if used must not be larger than 4½x4½ in. Tags or labels must not be attached with any metal fasteners. Standard weights: 25, 50, 75, 100, 125, 150, 175 and 200 lb. Samples of not less than 1 lb. are to be collected from not less than 10 packages if there are that many in the lot; not required to be collected in duplicate. Administrative officer: Commissioner of Agriculture and Commerce, Columbia.

SOUTH DAKOTA

Registration is required annually on or before Jan. 1 or before goods are offered for sale. Fee, $1 per brand; $15 for each brand of concentrated commercial feedingstuffs sold, offered for sale or distributed as and for food for dogs, cats and other pets in packages of 5 lb. or less; $20 for each brand of mineral feeds; $25 for each initial registration of brands of livestock remedies; such registration may be renewed annually by payment of a fee of $5 provided that the formula of such remedy has not been changed. Inspection fee is 15¢ per ton payable on semi-annual sworn statement showing number of net tons of feedingstuffs, except dog and cat food and except mineral feeds, sold or distributed during six preceding calendar months. Reports are due on or before 15th day of January and the 15th day of July each year. Materials requiring registration are mineral feeds; livestock remedies; all commercial feedingstuffs — "Concentrated Commercial Feedingstuffs" shall be construed to mean and include any product used or offered to be used for feeding livestock, poultry or other domestic animals and animals grown in captivity, except whole seed or grain, whole hay, straw, silage, and corn fodder, unmixed meals made from and composed of entire grains of wheat, rye, barley, oats, Indian corn, buckwheat, millet, broom corn, kafir, milo, or other seed or grain, and except mixed or unmixed meals of grains, with or without ground screenings added, which are sold and delivered in bulk to the consumer, and except those products hereinafter designated as mineral feeds. Label for commercial feeds must show net weight, name, brand or trademark; name and principal address of manufacturer or person responsible for placing commodity on market; minimum percentage of crude protein, and crude fat; maximum percentage of crude fiber; specific name of each ingredient and actual percentage by weight of limestone or other calcium carbonate-bearing material and of common salt contained in feed; provided that, if total amount of added mineral matter exceeds 5% by weight of whole feed, then label shall also show minimum percentage of calcium, phosphorus and iodine. Special regulations for labeling mineral feeds and livestock remedies. Information may appear in form of printing on package or tags attached to package; if printed on tags must not be smaller than 10-point for commercial feeds and mineral feeds and 8-point for livestock remedies. Deposit of samples is not necessary unless requested. Administrative officer: Secretary of Agriculture, Pierre.

TENNESSEE

Registration is required for all feeds used for livestock and domestic animals except whole hays, straws and corn stover where not mixed with other materials; unmixed whole seeds or grains of cereals when not mixed with other materials; no fee; registrations permanent. Inspection fee 20¢ per ton. In lieu of affixing or furnishing inspection stamps, application may be made to commissioner of agriculture for permit to pay fee on a monthly report basis; report must be under oath and is due and inspection fee payable on the 10th of each month. Label, either in the form of printing on package or tag attached to each package must state net weight; name and address of manufacturer; names of all ingredients; name, brand or trademark; minimum percentage of crude fat and crude protein; maximum percentage of crude fiber. Standard weights: 5, 8½, 10, 25, 50, 100 and 140 lb. Packages under 5 lb. are permitted if weight is "conspicuously" marked in at least 20-point type. Deposit of samples is not necessary unless requested. Administrative officer: Commissioner Department of Agriculture, Division of Feeds, Seeds and Fertilizer, Nashville.

TEXAS

Registration is required for each brand; no fee; registrations are permanent. Inspection fee, 10¢ per ton; tax tags to be affixed to each package. Label information must appear on tax tag or tax label attached to package and must state net weight; brand name, name and address of manufacturer or importer; minimum percentages of crude protein, crude fat and nitrogen-free extract; maximum percentage of

crude fiber; names of the ingredients (if a mixed feed); and percentage of each ingredient when rice hulls, peanut shells, corn cobs, oat hulls or other similar substances are present in a mixed feed. Deposit of samples is required, accompanied by affidavit, that it is an average sample of the material it represents. Standard weights: 5, 6¼, 8½, 10, 12½, 16⅔, 25, 50, 75, 100, 125, 133⅓ and 143 lb. Samples not exceeding 2 lb. to be collected in presence of party or parties in interest or their representative from not less than 5% of the whole lot inspected. Administrative officer: Director, Texas Agricultural Experiment Station, College Station.

UTAH

Annual registration by calendar years is required for all brands; registration fee $4; fee for amending any certificate of registration $1. Inspection fee, 10¢ per ton, applies only on feeds mixed to order. All feeds used for feeding birds and other domestic animals or domesticated wild animals are subject to registration except unmixed whole seeds or grains as defined by U.S. grain standards; unmixed meals made directly from and consisting wholly of any one of the following entire grains: corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir, milo or other seeds or grains, entire, unmixed hays, straws, cottonseed hulls, stover or silage, whether whole, ground or chopped, when unmixed with other materials. Each package shall have affixed thereto a tag in a conspicuous place on the outside containing a legible and plainly printed statement clearly and truly certifying net weight of contents; name, brand or trademark; name and address of manufacturer or distributor; minimum percentage of crude protein and crude fat; maximum percentage of ash, crude fiber, and maximum percentage of minerals; specific name of each ingredient. Deposit of samples is not necessary unless requested. Administrative officer: State Board of Agriculture, Salt Lake City.

VERMONT

Annual registration by calendar years or before offered for sale is required for each brand; registration fee: $20 for each brand for each calendar year or portion thereof for wholesalers; retailers $10 annually. Materials requiring registration are linseed oil meals, cottonseed oil meals, cottonseed feeds, pea meals, coconut meals, gluten meals, gluten feeds, maize feeds, starch feeds, sugar feeds, distillers' dried grains, brewers' dried grains, malt sprouts, hominy feeds, cerealine feeds, rice meals, oat feeds, corn and oat chops, corn and oat feeds, corn bran, ground beef, or fish scraps, meat and bone meals, mixed feeds, wheat, rye, barley and buckwheat offals, condimental stock and poultry foods, patented proprietary or trademarked stock and poultry foods, fox, mink, dehydrated food for dogs, and other materials of a similar nature. Each package must be labeled, either in form of printing on package or tag attached to package, showing net weight of contents; name, brand or trademark; name and address of manufacturer or importer; minimum percentages of crude protein and crude fat; maximum percentage of crude fiber; specific name of each ingredient; percentage of weed seed or screenings, except in poultry feeds, provided it exceeds 2%. Use of wire or metal fasteners to attach tags is prohibited. Deposit of samples not necessary unless requested. Administrative officer: Director, Agricultural Experiment Station, Burlington.

VIRGINIA

Registration is required of all concentrated commercial feedingstuffs intended for feeding livestock and poultry, except hays, straws and corn stover, when unmixed with other materials; whole unmixed seeds or grains of cereals when not mixed with other materials nor the pure products of wheat known as middlings, shorts and bran made from wheat only nor the pure products of corn known as meal, hominy grits and corn bran. Every lot or package of commercial feedingstuffs sold must have "affixed thereto, or printed thereon" a statement, certifying the net weight of the package; name, brand or trademark, name and address of manufacturer, jobber or importer; name of each ingredient; guarantee that contents are pure and unadulterated; maximum percentage of crude fiber, minimum percentage of crude fat and crude protein allowing 1% of nitrogen to equal 6¼% of protein. In lieu of affixing or furnishing inspection fee tags or stamps any manufacturer, jobber, importer, agent or seller of any concentrated feedingstuff may make application to the Commissioner of Agriculture and Immigration for a permit to report the tonnage of feedingstuff sold, offered or exposed for sale or distributed and pay the inspection tax of 15¢ per ton applicable, on the basis of such report. The report of tonnage is due and payable quarterly on the first day of January, April, July and October. The use of the reporting system is optional. All concentrated feedingstuffs must be in standard weight packages of 25, 50, 75, 100, 125, 140, 150, 175 and 200 lb. Before selling or offering for sale a copy of the statement above must be filed for registration with the Dairy and Food Commissioner for each and every feedingstuff bearing a "distinguishing name or trademark" and, on request, must accompany this statement with a sealed glass jar or bottle containing at least 1 lb. of such feedingstuff to be sold. Concentrated commercial feeds must bear inspection tags; inspection fee, 15¢ per ton. Administrative officer: Director, Dairy and Food Division, Department of Agriculture and Immigration, Richmond.

Wholesale Feed Prices 1934-35 to Date by Months

Note: Base period 1935-1940=100. **Source: USDA.**

Season	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Aver.
1950-51	212.2	225.2	234.6	238.7	...	...	...	...	...	...	...	...	...
1949-50	212.3	209.9	215.1	206.4	201.8	213.0	224.4	239.6	238.6	251.4	229.2	217.7	220.5
1948-49	211.4	232.4	232.9	226.5	211.2	215.6	230.1	222.8	215.7	227.2	233.8	216.9	223.2
1947-48	292.4	292.0	311.8	329.0	288.4	280.9	284.6	280.2	284.4	261.0	218.9	231.0	279.5
1946-47	252.1	267.6	223.0	209.1	200.1	243.3	229.1	231.3	246.6	263.9	269.2	294.3	241.6
1945-46	166.1	166.1	166.1	166.1	166.1	166.1	166.1	194.9	205.0	299.3	259.9	307.4	193.3
1944-45	166.2	166.2	166.2	165.8	166.0	165.8	166.5	164.6	164.9	165.6	166.0	166.0	165.7
1943-44	163.4	164.8	164.9	165.2	165.3	165.9	166.0	166.0	166.2	166.3	166.3	166.3	165.6
1942-43	136.1	140.6	143.5	145.3	145.1	148.2	148.9	148.8	148.4	148.6	161.2	162.2	148.1
1941-42	126.2	128.1	134.8	144.5	144.4	144.4	141.7	138.1	138.5	139.9	137.1	137.3	137.9
1940-41	91.2	101.0	99.7	99.3	92.8	92.9	96.4	95.4	100.4	113.2	118.4	134.0	102.9
1939-40	97.3	104.5	106.0	106.7	102.7	102.2	106.0	102.6	90.5	90.0	87.0	89.4	98.8
1938-39	80.8	82.4	87.6	90.6	88.5	92.4	95.9	96.5	90.2	84.3	81.0	105.4	89.5
1937-38	94.0	93.6	93.3	98.7	96.5	92.7	87.9	86.6	85.8	86.1	90.9	80.6	89.7
1936-37	139.4	138.9	136.3	141.2	135.1	134.2	148.5	142.7	125.2	119.0	100.0	94.3	127.2
1935-36	86.6	84.3	86.9	85.5	83.8	83.2	84.6	84.0	89.7	116.3	128.6	123.8	94.6
1934-35	110.5	116.5	126.8	122.3	118.0	112.1	113.1	113.1	102.6	91.4	85.3	82.5	107.9

Compiled by Market News and Services Division, Grain Branch, Production and Marketing Administration.

WASHINGTON

Registration annually, on or before April 1 or before offered for sale, is required for each brand per year; fee not more than $6 per year per brand. Retail dealers must pay license fee of $2 for each establishment or vehicle from which feeds are sold. Each package must be labeled, either in form of printing on package or tag attached thereto, showing net weight of contents; name, brand or trademark; name and address of manufacturer or dealer; minimum percentage of crude fat and crude protein and maximum percentage moisture; maximum percentage of crude ash (not to exceed 12% except in mineral feeds); maximum percentage of crude fiber (not to exceed 10%), and specific name of ingredients. All feeds used as a feedingstuff for domestic animals which are claimed to have nutritive value must be registered except hay, wheat flours or other flours, single grains, whole seeds or unmixed meals made from whole grains of wheat, rye, barley, oats, corn or other cereal when no part has been removed. Deposit of samples is not required. Administrative officer: Director, Department of Agriculture, Olympia.

WEST VIRGINIA

Registration is required for all commercial feedingstuffs used for feeding animals and birds, except whole seeds or grains and unmixed meals made directly from entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir and milo, whole hays, straws, corn stover when unmixed with other materials and all other unmixed materials containing a minimum of 60% of water. Registration fee for each brand, $1 (permanent unless cancelled or revoked). Inspection fee, 15¢ per ton on feeds in packages of 10 lb. or more; 5¢ per cwt. on feeds in packages of less than 10 lb. Each registrant is required to file with the commissioner of agriculture on or before the 20th day of January and July each year a sworn statement setting forth net weight by brand, names and kinds of commercial feedingstuffs sold in the state preceding six months and pay tonnage fee prescribed by law. Every lot, parcel, bag, or other container of commercial feedingstuff must have attached a tag to convey the following information, except this does not apply to paper containers on which the following information is legibly printed: net weight of contents of package (gross weight not accepted); name, brand or trademark; name and address of the manufacturer or person responsible for placing the commodity on market; minimum percentage of crude protein, minimum percentage of crude fat, maximum percentage of crude fiber; specific name of each ingredient used in its manufacture with a statement of the amount or percentage of each such ingredient as salt, charcoal, carbonate and phosphate of lime, grit and such inferior or objectional materials as the commissioner may hereafter prescribe; specific name of each and every ingredient used in manufacture of the commercial feedingstuff in the common English term for such ingredient; actual percentage, source and condition of grain screenings used. Deposit of samples is not necessary unless requested. Administrative officer: Commissioner of Agriculture, Charleston.

WISCONSIN

Registration is required of all materials used for feeding animals or birds except unmixed whole seeds or grains; unmixed meals made directly from entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed, kafir, milo and other seeds or grains; whole hays, straws, cottonseed hulls, stover and silage, when unmixed with other materials. A registration fee of $1 is required for each brand plus an in-

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Central Retail Feed Assn.

spection fee of 5¢ per ton on all such feeds sold in the state during the preceding calendar year, provided the minimum inspection fee is not less than $10, or a $15 registration fee for a wholesaler's license authorizing sale or resale anywhere within the state or a $5 registration fee for a retailer's license authorizing sale at retail at one location in the state to ultimate user and not for resale. Feed for mixing purposes is exempt if so labeled. Each package must be labeled, either in form of printing on package or tag attached, showing net weight; brand or trade name; name and principal address of manufacturer or person responsible for placing commodity on market; ingredients; minimum percentages of crude protein, crude fat and maximum percentage of crude fiber; in the case of mixed feeds containing more than a total of 5% of added mineral ingredients and in case of mineral feeds mixed or unmixed, minimum percentage of calcium (Ca.), phosphorus (P.), iodine (I.), maximum percentage of salt (NaCl.). If no nutritional properties other than of a mineral nature are claimed, percentages of crude protein, crude fat and crude fiber may be omitted. In case of feeds containing for their principal claim dietary factors in forms not expressible by the foregoing chemical components or are thereby inadequately described, a statement of guarantee must be specified by ruling of the department. Deposit of samples not necessary unless requested. Administrative officer: Director, State Department of Agriculture, Madison.

WYOMING

Annual registration is required by June 30 or before goods are offered for sale; no fee, registration tags required. The label, either in the form of printing on package or tag attached, must show net weight of contents; name, brand or trademark; name and address of manufacturer or dealer; minimum percentage of crude protein and crude fat; maximum percentage of crude fiber; percentage of added approved synthetic nitrogen sources reported as proteins, for ruminant feeding only; specific name of each ingredient. All feedingstuffs used for feeding livestock and poultry must be registered, except whole seeds or grains; unmixed meals made directly from entire grains of corn, wheat, rye, barley, oats buckwheat, flaxseed, kafir and milo; whole hays, straws, cottonseed hulls and corn stover when unmixed with other materials and all other materials containing 60% or more of water. When requested, a sample of not less than 1 lb. in sealed glass jar is to be forwarded to State Chemist, Laramie Wyo. Administrative officer: Commissioner of Agriculture, Cheyenne.

Farm Animals in U. S.

Note: 000's omitted. Source: USDA

	Horses	Mules	Milk cows
1951	4,763	1,990	24,579
1950	5,274	2,149	24,573
1949	5,898	2,348	24,416
1948	6,589	2,541	25,939
1947	7,249	2,772	26,098
1946	8,053	3,010	26,695
1945	8,715	3,235	27,770
1944	9,302	3,531	27,656
1943	9,675	3,704	27,106
1942	9,907	3,813	26,398
1941	10,214	3,922	25,478
1940	10,442	4,039	24,926
1939	10,815	4,384	25,088
1938	11,128	4,428	24,834
1937	11,445	4,568	24,993
1936	11,635	4,684	24,439
1935	11,861	4,822	26,069
1934	12,052	4,945	26,931

	All cattle	Sheep	Swine
1951	84,179	60,502	65,028
1950	80,052	30,743	31,505
1949	78,298	31,654	57,128
1948	78,126	34,827	55,028
1947	81,207	37,818	56,921
1946	82,434	42,436	61,301
1945	85,573	46,520	59,331
1944	86,334	51,769	83,852
1943	81,204	55,775	73,736
1942	76,025	56,735	60,377
1941	71,755	54,283	54,256
1940	68,309	52,399	61,115
1939	66,029	53,783	49,293
1938	65,249	52,682	44,218
1937	66,098	52,489	49,011
1936	67,847	52,022	42,837
1935	68,846	52,245	39,004
1934	74,369	53,713	58,621

Canadian Millfeed Exports

Note: By crop years ending July 31. Source: Dominion Bureau of Statistics, in tons:

Crop years	Production	Exports
1949-50*	694,346	55,394
1948-49	695,346	53,969
1947-48	868,866	30,502
1946-47	970,652	40,414
1945-46	881,844	32,170
1944-45	814,272	41,685
1943-44	797,083	36,038
1942-43	792,208	51,186
1941-42	686,304	93,800

*Preliminary.

Soybean Movement at Centers

Note: In bushels. Source: Local Grain Exchanges.

RECEIPTS

	1948	1949	1950
Baltimore	584,760	7,960,355	1,986,541
Buffalo*	78,331	206,000	48,231
Norfolk	114,703	2,819,973	.....
Chicago	14,616,000	19,119,000	19,492,000
Cincinnati	.....	.....	792,500
Indianapolis	5,523,300	7,094,600	5,468,200
Kansas City	4,911,300	6,720,000	6,487,200
Milwaukee	.....	3,200	.....
Minneapolis	7,202,900	5,717,100	3,595,500
New Orleans	169,213	3,954,885	460,967
New York	818,285	192,694	67,759
Omaha	1,139,358	1,294,548	1,096,476
Philadelphia	1,781,000	2,009,609	781,316
St. Joseph	1,485,750	2,018,000	1,792,000
St. Louis	4,139,614	5,820,161	.....
Toledo	4,715,800	5,792,020	4,130,626
Wichita	633,600	725,400	963,000

SHIPMENTS

	1948	1949	1950
Chicago	6,078,000	8,108,000	8,278,000
Cincinnati	.....	.....	423,000
Indianapolis	5,061,600	6,705,100	4,579,000
Kansas City	2,485,400	2,136,900	3,593,800
Baltimore	238,070	7,445,531	2,002,753
New Orleans	952,948	9,453,258	9,757,586
Minneapolis	2,866,200	3,887,100	1,696,800
New York	540,000	76,000	.....
Omaha	587,334	590,735	758,400
Philadelphia	942,000	2,480,368	919,448
St. Joseph	42,000	84,000	36,750
Toledo	4,228,200	5,281,166	4,283,623
Wichita	12,600	18,000	309,600
Norfolk	910,931	2,854,594	.....

*Lake receipts only.

For Additional Facts:

Crops - - Pages 82-90

Flour Section, Pages 2-58
- Exports and Imports
- Millfeed Production
- World Import Duties

Foreign Section, Page 41
- Crops
- Exports and Imports
- Regulations

Grain Section, Pages 58-91
- Contract Grades of Grain
- Corn and Wheat Standards
- Elevators and Capacities
- Grain Receipts and Shipments
- Stocks, Distribution and Supply

Topical Index

Canadian Feed Law

Annual registration is required of all feedingstuffs intended for feeding livestock and poultry except whole hay, straw, corn stover and silage unless mixed with other material and the following for which labeling but not registration is required, whole grain and cultivated seed, hulled oats and barley, cracked corn, wheat bran, shorts, middlings, feed flour and germ, chop feeds the product of wheat, oats, barley, corn, flax, rye, spelt, emmer, buckwheat, field peas, field beans and soybeans singly or mixed, chop feeds the product of No. 1 feed screenings, No. 2 feed screenings or mixed feed oats singly, limestone, marl, chalk, oyster shell, clam shell and other calcium and/or grit materials, vitamin A and D supplements, other feeds prescribed by regulation. Registration expires Sept. 30; fee is $2.00 for each brand. Label for registered feeds is printed on one side of container or tag and requires name and address of registrant, name and brand of feed, registration number, net weight (restricted to prescribed weights), name of each ingredient, guaranteed analysis. Guaranteed analysis is required in percentages for general feeds: minimum crude protein and crude fat, maximum crude fiber; supplements: minimum crude protein and crude fat, maximum crude fat when over 7%, maximum crude fiber, actual percentage calcium, phosphorus, iodine, iron, salt; minerals: actual percentage calcium, phosphorus, iodine, iron, salt; blood meal: minimum crude protein, bone products except bone char: minimum crude protein, maximum crude fat when over 5%, actual percentage phosphorus and calcium; dried milk and buttermilk: minimum crude protein; dried whey: minimum crude protein and lactose; fish liver meal: minimum crude protein, minimum and maximum crude fat; other fish products except oil: minimum crude protein, maximum crude fiber when over 2%, maximum salt and crude fat; meat and meat-and-bone products: minimum crude protein, maximum crude fat, maximum crude fiber when over 2%; semi-solid milk or buttermilk: minimum crude protein, maximum moisture. Sample of feed is not required with application for registration unless requested. Excessive injurious material and viable weed seeds are prohibited. Samples drawn for official analysis are taken in duplicate, one sample being left with the seller, from at least five separate packages or from each package when there are less than five. Administrative officer: Associate Chief (Feeds) Plant Products Division, Canada Department of Agriculture, Ottawa.

Wheat Breeding

During the past 25 years plant geneticists, generously assisted by the flour milling industry, have made great strides in breeding strains of wheat with desirable agronomic, pathologic and quality characteristics. From their laboratories and greenhouses, and from test plots, have come new varieties that have replaced such standby wheats as Marquis in the spring wheat area and Turkey Red in the hard winter wheat region.

Leading varieties of spring wheats—all of them products of the plant breeders—include Rival, Mida, Pilot, Regent, Newthatch, Cadet, Ceres and Reward. Winter wheat varieties, also "tailor-made" wheats, include Tenmarq, Cheyenne, Pawnee, Comanche, Nebred and Kawvale.

Through years of testing different pure varieties and charting the dominant recessive characteristics of each of the parents, plant breeders have been able to produce crosses for specific purposes. For instance, the scientists know which variety or strain will transmit resistance to certain strains of stem rust or leaf rust, and which will transmit its resistance to Hessian fly infestation.

Other factors that may be controlled by the plant breeders include maturity, stiffness of straw, resistance to winter-killing, earliness of maturity, gluten quality, length of straw, and resistance to shattering after maturity.

The wheat breeding program, formerly carried on independently by the state agricultural experiment stations, now is under the supervision of the division of cereal crops and diseases, Bureau of Plant Industry, U.S. Department of Agriculture. Coordination has made possible the interchange of fundamental facts dealing with the genetics of the wheat plant and multiple testing of new strains.

Stem and leaf rust plagues are no longer a menace to wheat production, because of the discoveries of the plant breeders, who have been able to replace susceptible varieties with rust resistant wheats.

Information About the Baking Industry

A THIRTY-YEAR dream of the baking industry came true during 1950 when the new million dollar headquarters building of the American Institute of Baking was dedicated Oct. 15 in Chicago. The dedication ceremonies were a highlight of the 1950 convention of the American Bakers Assn. and industry leaders participating in them pointed out the new scientific and educational headquarters of the baking industry will fill a long felt need.

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The year 1950 also saw the result of extensive testimony on proposed definitions and standards of identity for various breads and rolls or buns when the proposed standards were published in the Federal Register of Aug. 8, after having been signed by the Federal Security Administrator. On the controversial question of bread softeners, the proposed standards omitted polyoxyethylene emulsifiers and similar bread softeners, thus banning their use in bread when and if standards become effective without change. As the year came to a close the government was studying exceptions to the tentative order and after a review of all evidence it was expected that the bread standards would be promulgated in final form. There were requests, however, for a reopening of hearings, and some observers believed that controversial issues would not be settled until they were taken before the Supreme Court.

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The Bakers of America Program during the year 1950 featured a greater concentration on consumer education. Two consumer advertising campaigns, one featuring bread and the other sweet goods, continued to appear in several national consumer magazines. The biggest bread sales building campaign in the history of the baking industry was tied into the 32-page sandwich manual which appeared as part of the May issue of Good Housekeeping magazine. The magazine put the story of bread before 20 million readers, giving the consumer practical information in making a variety of sandwiches for every occasion. The Bakers of America Program organized a tie-in campaign, using the theme "Summer Time Is Sandwich Time."

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The price of bread continued to receive attention in the nation's newspapers and from congressional investigating committees. As the year 1950 opened, a congressional committee was hearing testimony on baking industry profits and an investigation was also under way in New York City, where "price maintenance" by bakers was charged. In October, a government analysis of the retail price of a loaf of bread which implied that the baking industry was taking a greater proportionate share in 1949 than it did in 1947 was branded as "incomplete and misleading" by the president of the American Bakers Assn. As the year came to a close, the price of bread was again being raised in several markets in scattered parts of the nation and increases were expected soon in many others. Reasons for the price hikes were the recent increases in the costs of supplies and ingredients, as well as an accumulative rise in bakery labor costs.

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The answer to one of the breadstuffs industries' most important problems—the "fattening phobia"—was seen when the results of a weight reduction study were reported as disproving the popular idea that bread is fattening. The study was carried on by Dr. Ruth M. Leverton, professor of nutrition research at the University of Nebraska, in cooperation with the Wheat Flour Institute. As the year drew to a close both the baking industry and the milling industry were making plans for a promotional program using this new ammunition in the fight against the "fattening phobia."

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In April also, contract negotiations with bakery worker unions in 12 areas were stalemated as the Continental Baking division of the Bakery and Confectionery Workers International Union continued to press its demand for negotiation of a single nationwide contract with the Continental Baking Co. The local unions refused to negotiate the traditional local area contracts if the Continental Baking Co. was represented in the employers' groups. Employers, on the other hand, refused to enter negotiations without representation for Continental. A scheduled strike of 2,500 bakery workers of more than 30 plants of the Continental Baking Co. was averted May 8, when the bakery workers' international union, through the efforts of the Federal Mediation and Conciliation Service, decided to present its case for a single nationwide contract with Continental to the National Labor Relations Board for decision. As the year ended there was no report of further developments in the situation, although the international union held three conferences in Chicago in November for the purpose of discussing the establishment of additional company divisions. The proposed new divisions would seek nationwide contracts with the General Baking Co., Purity Bakeries Corp., the Ward Baking Co. and Hathaway Bakeries, Inc. During the early part of 1951, the M. L. R. B. was holding hearings on the controversy.

Laws Governing the Sale of Bread

ALABAMA

All bread must be enriched except bread made from the entire wheat berry with no parts of the wheat removed, bread made from mixtures of white flour and whole wheat flour and specialty breads. It is unlawful to sell or offer for sale any enriched bread which fails to conform to the labeling requirements of the Federal Food, Drug and Cosmetic Act, and the regulations promulgated thereunder. (See page 4.) Bread must be wrapped or packaged individually or in unit quantities and sealed. The wrapper must enclose or have printed or stamped thereon the name and address of the baker.

ARIZONA

The manufacture and sale of bakery products must be so conducted as to prevent the dissemination of disease. No bakery product may be returned after purchase, or accepted or exchanged after sale. The vehicles and receptacles in which bakery products are transported must be in a clean and wholesome condition; containers and places where bakery products are kept or exposed for sale must be kept well covered and properly ventilated. Wrapped bread need not otherwise be covered. Bread must not be placed in any box or receptacle with any other article of food. A loaf of bread, sold, offered or exposed for sale, as fresh bread, must weigh: 1 lb., 1½ lb. or multiples of 1 lb.; determined by the average of not less than 20 loaves of 1 unit, of one kind of bread, weighed with or without wrappers and not less than 12 hours after baking. When twin or multiple loaves are wrapped at the place where baked, or sold to the consumer wrapped and undivided, the loaf must conform to the weight requirements, and if unwrapped or divided prior to sale each unit must conform to weight requirements. A tolerance in excess of the standard weight is allowed of 1 oz. on 1 lb. loaves; 1½ oz. on 1½ lb. loaves, 2 oz. on loaves weighing 2 lb. or more. No tolerance below the standard weight is allowed. Supervising authority: State Department of Health, Phoenix.

ARKANSAS

Bread when displayed must be placed in tight cases or otherwise protected and when transported must be suitably wrapped or packed in clean containers at the shop or plant where baked. It is unlawful for any person to manufacture, bake, sell or offer for sale or to receive in interstate shipment for sale for human consumption, any bread, except 100% whole wheat, unless it has been enriched in accordance with the definition of enriched bread as promulgated by the Federal Security Agency. The label must conform to the requirements of the Food, Drug and Cosmetic Act. (See page 4.)

CALIFORNIA

Bread sold in wrappings must have on the body of the wrapping in letters so as to be clear and legible to the buyer and in a color contrasting with the background, the words "standard loaf" and "standard large loaf." "Standard loaf" must weigh not less than 15 oz. and not more than 17 oz. "Standard large loaf" must weigh not less

U.S. Baking Industry, General Statistics for 1947 and Earlier Years

Note: These figures cover establishments primarily engaged in the manufacture of bakery products. These establishments are classified in two industries: those chiefly engaged in manufacturing bread, cakes, hand-made cookies, doughnuts, pies, pastries and similar perishable bakery products and those engaged in producing "dry" bakery products such as biscuits, crackers and pretzels. **Source: U.S. Bureau of the Census**

(Money figures in thousands of dollars)

Industry and census year	No. of establishments	All employees: Number (aver. for the year)	All employees: Salaries and wages, total	Production and related workers: Number (aver. for the year)	Production and related workers: Wages, total	Value added by manufacture*	Cost of materials, fuel, electricity and contract work	Value of products shipped†
Bread and other bakery products—								
1947 total	6,797	233,310	$655,979	150,055	$351,126	$1,100,836	$1,316,055	$2,416,891
Bakeries selling primarily to grocers..	3,455	136,867	397,262	85,600	198,529	673,861	819,724	1,493,585
Bakeries selling primarily to hotels, restaurants and institutions	1,564	26,976	72,091	20,263	47,658	120,393	150,990	271,383
Retail multi-outlet bakeries	1,084	26,802	58,313	18,540	43,139	104,868	114,944	219,812
Bakeries selling primarily through house-to-house routes	624	30,724	98,752	14,894	35,702	149,805	132,132	281,937
Grocery chain bakeries	90	11,939	29,561	10,758	26,108	51,909	98,265	150,174
1939‡	10,335	‡217,000	‡298,000	$180,202	$236,576	573,837	491,498	1,065,335
1939§	18,043	247,591	330,666	201,533	262,002	643,597	567,427	1,211,024
1937	16,874	231,258	304,309	210,597	265,354	588,598	629,267	1,217,865
1935	18,720	207,771	255,763	189,182	222,645	471,736	580,728	1,052,464
1933	14,483	169,378	195,446	155,289	174,423	399,340	370,992	770,332
1931	17,364	***	***	154,764	212,353	543,373	436,531	979,904
1929	20,410	183,926	279,770	168,878	240,354	621,622	629,999	1,251,621
1927	17,909	154,245	239,846	139,013	202,197	560,406	585,304	1,145,710
1925	17,490	142,235	216,008	128,034	187,660	462,920	560,748	1,023,668
1923	18,572	142,269	213,579	127,496	183,221	425,949	485,169	911,118
1921	20,924	132,611	195,824	117,026	169,829	386,895	515,568	902,463
1919	24,919	131,504	168,886	107,251	132,171	337,771	610,105	947,876
1914	25,797	113,976	79,681	99,016	66,072	171,825	230,584	402,409
Biscuit, crackers and pretzels—								
1947	326	46,058	109,223	37,526	78,361	264,973	275,249	540,222
1939	356	35,930	42,059	29,173	28,550	118,743	82,050	200,793
1937	319	31,877	35,146	28,791	28,641	110,643	97,755	208,398
1935	348	32,159	32,060	29,241	25,888	93,295	89,313	182,608
1933	347	29,475	26,238	27,153	22,250	92,972	56,473	149,445
1931	354	***	***	28,397	26,978	141,197	68,946	210,143
1929	375	38,556	44,676	33,871	34,208	167,389	107,101	274,490
1927	320	37,387	43,120	32,982	34,029	141,058	107,932	248,990
1925	194	36,918	41,129	32,377	31,946	137,259	107,268	244,527
1923	167	39,868	40,500	35,117	31,358	122,437	89,351	211,788
1921	149	36,435	38,571	31,474	29,110	104,463	83,046	187,509
1919	176	41,230	38,171	34,341	26,066	100,887	103,134	204,021
1914**	166	30,082	16,953	25,036	10,794	45,810	43,674	89,484

***Not available.

*Value of products less cost of materials, supplies, fuel, electricity and contract work.

†For 1947 and 1929, value of products shipped; for all other years, value of products made.

‡The 1939 figures in regular type are based on retabulations of 1939 census schedules classified in accordance with 1947 industry definitions and, except for production worker data, are comparable with the figures for 1947. The bold face figures for 1939 have not been retabulated and are comparable with the figures for earlier years.

§Estimated by applying to retabulated data on number and wages of production workers the following ratios, respectively, computed from published 1939 statistics: (1) Total number of employees to number of production workers in establishments classified as "wholesale" and "wholesale and retail" and (2) wages paid to all employees to wages paid to production workers in the same categories.

‖Figures are for wage earners, including driver-salesmen, and are not comparable with 1947. Analysis of a sample of 1939 returns indicates that somewhat over 40% of these wage earners were driver-salesmen.

**"Biscuit, crackers and pretzels" was formerly a part of the discontinued classification "bread and other bakery products." Separate figures are therefore not available for years prior to 1914.

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than 22½ oz. and not over 25½ oz. Each unit of a twin or multiple loaf must conform to the standard weights specified for standard loaf or standard large loaf or any multiple of either of such weight.

COLORADO

Before bread is taken from the bakeshop, each loaf or double loaf must be placed in a suitable paper bag or be securely wrapped with clean glazed paper. Bread at all times must be thoroughly protected from contamination.

CONNECTICUT

Bread wrapped in paper or other material must have on the outside of the wrapper a plain statement of weight; if unwrapped, each loaf must have either a pan impression of the weight or a label attached to the loaf on which its weight is plainly printed. Bread must weigh 1 lb. or additional fraction of 1 lb. up to a maximum of 4 lb. No loaf must vary more than 1 oz. per pound from the standard or marked weight within 12 hours after baking. Loaves which weigh less than the minimum standard must have their weight plainly and conspicuously stated on the wrapper or label. All bread wrappers must be printed with the name and address of the baker. The baker who sells in bulk through stores must furnish suitable wrappers bearing the name and address of the manufacturer for use of the retailer in packaging bread for retail sale.

DELAWARE

All bread made from wheat flour in whole or in part must weigh at least 1 lb. avoirdupois.

DISTRICT OF COLUMBIA

Every loaf of bread manufactured for sale, sold or exposed for sale must have affixed in a conspicuous place, a label at least 1 in. square or 1 lb. in diameter, on which must be printed in plain bold face Gothic type not smaller than 12 pt., the weight of the loaf in black ink on white paper. The business name and address of the baker must be plainly printed on each label. Standard loaf sizes are ½ lb., 1½ lb. or multiples of 1 lb.

FLORIDA

Shipping baskets and other containers for transporting bread must be kept clean and used for no other purpose than the distribution of bakery products. All shipping baskets must be lined with clean paper, ventilated and properly covered. The label must include name of product, name and address of the manufacturer or distributor and net weight.

GEORGIA

Label must state net weight and name and address of manufacturer. Statement may appear on the wrapper upon the top or side or if the bread is unwrapped on the label upon the bottom of the loaf. Standard unit loaves are 1 lb., 1½ lb., 2 lb., 3 lb., 4 lb. and 5 lb.

HAWAII

Standard bread loaf sizes are: ¾ lb., 1 lb., 1½ lb., 2 lb. or other lb. weights. Variations at the rate of 1 oz. per lb. over and 1 oz. per lb. under the specified weights are permitted in individual loaves, but the average weight of not less than 25 loaves of any one unit of any one kind must not be less than the weight prescribed. Twin or multiple loaves may be sold provided they conform to the weight requirements.

IDAHO

A whole loaf of bread for sale must weigh not less than 16 oz. 24 hours after baking. Bread, unless composed in chief parts of rye and maize, must be sold in whole or half loaves and not otherwise. Every loaf or half-loaf which does not weigh the full weight required must be plainly labeled with the exact weight.

ILLINOIS

If bread is wrapped the true quantity must be "plainly and conspicuously" marked on the outside in terms of weight. If unwrapped or wrapped in clear cellophane, a small sticker giving the net weight and the name and address of the baker is accepted as a label. All bread must be sold by weight. Standards promulgated by the U.S. Food and Drug Administration will automatically be adopted and enforced.

INDIANA

All white bread and rolls must be enriched to conform to definition and standard of identity in effect for enriched products and must conform to the labeling requirements of the Federal Food, Drug and Cosmetic Act and the regulations promulgated thereunder (see page 4). The label requirement does not apply to white bread or rolls which bears no labeling of any kind and which is sold directly to the consumer by the manufacturer. Loaves of bread must be of the following standard weights and no other: ¾ lb., 1 lb., 1¼ lb., 1½ lb., 2 lb. and some whole multiple of 1 lb. Allowable tolerances and variations must not exceed 1 oz. per lb. over or 1 oz. per lb. under the standard unit weight. Each loaf must bear a label in a "conspicuous place," which states "plainly and distinctly" the weight together with the business name of the baker or manufacturer. In case of wrapped bread this information must be stated upon the wrapper of each loaf in a "conspicuous position unobscured by the folds of the wrapper"; if unwrapped, the information must be stated upon label, affixed to the loaf which is no larger than 1 by 1½ in. in size and no smaller than 1 in. by ¾ in.

IOWA

There must be printed upon the wrapper of each loaf of bread in a "plain conspicuous" type the name and address of the manufacturer and the weight of the loaf. Bread manufactured, offered or exposed for sale must be one of the following standard weights and no other: ¾ lb., 1 lb., 1¼ lb., 1½ lb., or multiples of 1 lb. In the case of twin or multiple loaves the

Baking Industry — Quantity and Value of Products, 1947 and 1939

Note: These figures cover establishments primarily engaged in the manufacture of bakery products. Source: U.S. Bureau of the Census

(Quantity and value figures in thousands)

Product	Bakery products (except biscuits, crackers and pretzels) industry: Wholesale: Selling to grocers and grocery chain bakeries	Bakery products (except biscuits, crackers and pretzels) industry: Wholesale: Selling to hotels, restaurants and institutions	Bakery products (except biscuits, crackers and pretzels) industry: Retail: House-to-house	Bakery products (except biscuits, crackers and pretzels) industry: Retail: Retail multi-outlet	Biscuit, crackers and pretzels industry	Other industries	1947 total	1939 total*
Bread, total value	**$973,457**	**$52,653**	**$130,908**	**$37,365**	**$2,439**	**$34**	**$1,196,856**	***
White pan—								
Pounds	7,339,743	271,499	812,727	175,717	21,224	242	8,521,157	7,218,843
Value	$783,046	$31,397	$101,132	$19,915	$2,145	$25	$937,660	$491,521
White hearth—								
Pounds	211,099	37,376	37,537	20,106	....	....	306,117	
Value	$25,757	$4,367	$5,054	$2,714	....	....	$37,892	
Whole wheat, cracked wheat and other dark wheat breads—								
Pounds	727,296	29,764	101,034	33,706	†	1,612	893,411	1,731,225
Value	$84,497	$3,588	$12,999	$4,204	†	$190	$105,487	$128,210
Rye, including pumpernickel—								
Pounds	445,748	63,331	55,897	44,865	†	550	613,391	
Value	$56,183	$7,775	$7,851	$6,139	†	$68	$78,016	
Raisin and other specialty breads—								
Pounds	138,842	11,158	21,231	20,994	261	....	192,476	462,580
Value	$19,443	$1,487	$3,595	$3,342	$36	....	$27,813	$37,428
Bread, not reported in detail, value	$4,531	$4,149	$367	$1,051	....	....	$10,098	‡
Rolls, cakes, pies and pastries, total value	**$564,077**	**$179,186**	**$124,642**	**$136,381**	**$5,082**	**$1,433**	**$1,011,491**	***
Rolls, bread type—								
Pounds	664,253	165,228	48,417	62,459	†	2,434	942,791	
Value	$102,891	$25,402	$10,503	$13,410	†	$437	$152,643	
Sweet yeast goods—								1,068,302
Pounds	205,779	96,743	110,086	97,310	†	2,410	512,328	$140,135
Value	$79,852	$27,404	$39,598	$34,856	†	$639	$182,169	
Doughnuts, cake type—								
Dozens	192,450	64,542	23,244	27,901	1,445	9	309,591	336,019
Value	$46,318	$16,202	$8,953	$8,414	$312	$4	$80,203	$56,375
Soft cakes—								
Pounds	573,587	84,337	128,406	113,656	9,795	426	1,310,207	963,195
Value	$267,806	$24,841	$48,766	$45,033	$4,013	$364	$390,663	$186,131
Pies—								
Pounds	197,473	307,791	33,506	61,314	†	552	600,641	***
Value	$45,678	$70,840	$11,447	$18,501	†	$284	$146,750	$75,121
Pastries, all types, value	$5,178	$5,686	$2,122	$7,709	†	$97	$20,792	$24,346
Cookies, hand-made—								
Pounds	35,791	15,704	7,797	17,172	†	4,132	80,596	111,986
Value	$9,935	$5,022	$2,827	$6,358	†	$973	$25,115	$19,716
Rolls, cakes, pies, etc., not reported in detail, value	$6,619	$3,789	$426	$2,100	....	$132	$13,066	‡
Bakery products, not reported in detail, value¶	$63,473	$36,717	$13,104	$37,949	$101	$481	$151,825	$127,214
Biscuit, crackers and pretzels, total value	**$20,019**	**$1,335**	**$7,943**	**$3,281**	**$510,950**	**$5,277**	**$557,805**	**$213,755**
Cookies, machine-made—								
Pounds	64,305	†	18,630	8,548	921,382	14,361	1,027,216	
Value	$15,832	†	$7,441	$2,804	$297,507	$3,518	$327,102	
Crackers, sponge, grahams, sprayed varieties, and low-sugar content biscuit—								1,611,558
Pounds	†							$207,693
Value	†	†	†	†	$206,389	$6,937	$213,326	
Pretzels—								
Pounds	†	†	†	†	68,835	5,333	74,168	53,331
Value	†	†	†	†	$16,054	$1,323	$17,377	$6,062
Retail outlets in operation Oct. 15	$1,493	733	497	5,733	....	....	8,456	9,913
House-to-house routes in operation Oct. 15	2,300	213	10,771	297	....	....	13,581	18,472

***—Not available.

*The 1939 figures include the production of retail single-outlet bakeries and are not closely comparable with the 1947 data. Production of such bakeries amounted to about 10% of the total for 1939, but this percentage cannot be applied to specific products; the percentage accounted for by small bakeries is undoubtedly much larger in the case of specialty breads, pastries, doughnuts and hand-made cookies, and smaller for other items.

†Combined with "other industries," to avoid disclosure of figures for individual companies. Combined figures are in bold face.

‡Combined with "bakery products, not reported in detail."

¶Represents total sales of companies unable to report products in detail. The value of products included other than bread, rolls, cakes and pastries is negligible.

§In addition, 9,889 outlets were reported by grocery chain bakeries.

weight specified must apply to the combined weight of the two units.

KANSAS

Bread must be wrapped in clean unused paper, unprinted or printed on one side only, or placed in a bag which must be sealed or closed. A loaf of bread for sale must weigh 2 lb. Bread, unless composed in chief part of rye or maize, may be sold in whole, half and quarter loaves. Every loaf, half-loaf or quarter-loaf which does not weigh the full weight must be plainly labeled with the exact weight.

KENTUCKY

No person may manufacture, bake, sell or offer for sale for human consumption any bread unless it contains the vitamins and other ingredients necessary to make it conform to the definition and standard of identity of enriched bread or enriched white bread as fixed and established by order of the Federal Security Agency and must conform to the labeling requirements of the Federal Food, Drug and Cosmetic Act. (See page 3.)

LOUISIANA

It is unlawful for any person to manufacture, bake, sell or offer for sale or to receive in interstate commerce for sale for human consumption any bread, except bread which contains no wheat flour or is made from whole wheat flour, unless it is enriched to conform to the definition and standard of identity of bread as promulgated by the Federal Security Agency. And it must conform to the labeling requirements of the State Food, Drug and Cosmetic Law and the Federal Food, Drug and Cosmetic Act. (See page 3.) All enriched bread, when wrapped, must be labeled "Enriched Bread."

MAINE

All bread made for sale must be properly enclosed in a sanitary wrapper. All white bread and rolls must be enriched.

MARYLAND

Bread wrapping is not required, but if wrapped the quantity of the contents must

Quantity and Value of Bakery Products (Revised)

(All figures in thousands)

Product—	1947: Pounds	1947: Value	1939 (revised)*: Pounds	1939 (revised)*: Value
Products specified, total	13,682,065	$2,017,551	10,848,000	$939,000
1. White pan bread	8,521,157	937,560	6,823,000	460,000
2. Other bread, except specialty	1,812,919	221,385	1,578,000	116,000
3. Raisin and other specialty bread	192,476	27,813	441,000	35,000
4. Rolls and sweet yeast goods	1,555,119	334,512	870,000	112,000
5. Cakes, doughnuts & handmade cookies	1,600,394	495,981	1,174,000	216,000

"The previously published 1939 figures have been adjusted to exclude production of retail single-outlet bakeries on the basis of a retabulation of data for a random sample of 136 such bakeries. Coefficients of variation computed by standard methods indicate that the chances are 19 out of 20 that the estimated figures differ from the true figures by less than the following percentages: Item 1, 1.6%; item 2, 4%; item 3, 2.4%; item 4, 4.6% and item 5, 3.1%.

Estimated Flour Consumption by the U.S. Baking Industry, by States, 1947

Note: These figures cover establishments primarily engaged in the manufacture of bakery products. Source: U.S. Bureau of the Census

(In thousands of 100-lb. sacks)

Division and state	Amount reported as consumed*	Estimated consumption of all plants included in the census†	Estimated total consumption in bakeries (including one-shop retailers)‡
United States	**97,023**	**104,810**	**123,364**
New England—			
Maine	609	629	675
New Hampshire	281	306	379
Vermont	191	202	242
Massachusetts	3,998	4,339	4,951
Rhode Island	648	676	732
Connecticut	1,089	1,230	1,483
Middle Atlantic—			
New York	11,593	12,507	15,171
New Jersey	3,209	3,462	5,133
Pennsylvania	8,836	9,552	10,469
East North Central—			
Ohio	7,208	7,556	8,644
Indiana	2,706	2,917	3,311
Illinois	6,070	6,528	8,134
Michigan	4,405	4,757	5,594
Wisconsin	1,858	1,937	2,599
West North Central—			
Minnesota	1,671	1,735	2,399
Iowa	1,795	2,006	2,435
Missouri	3,899	4,091	4,008
North Dakota	338	376	468
South Dakota	312	313	405
Nebraska	970	1,006	1,173
Kansas	904	1,010	1,194
Pacific—			
Washington	1,497	1,607	1,963
Oregon	1,077	1,178	1,391
California	5,949	7,311	9,197
South Atlantic—			
Delaware	304	360	375
Maryland	1,614	1,793	2,030
District of Columbia	941	927	1,037
Virginia	1,402	1,551	1,689
West Virginia	1,198	1,223	1,310
North Carolina	1,432	1,519	1,631
South Carolina	589	608	682
Georgia	1,853	1,946	2,069
Florida	1,266	1,495	1,754
East South Central—			
Kentucky	1,120	1,163	1,349
Tennessee	1,872	1,942	2,092
Alabama	858	932	987
Mississippi	545	592	659
West South Central—			
Arkansas	607	661	730
Louisiana	1,332	1,583	1,781
Oklahoma	1,043	1,237	1,410
Texas	4,360	4,817	5,395
Mountain—			
Montana	278	358	432
Idaho	152	283	333
Wyoming	87	97	127
Colorado	1,077	1,150	1,303
New Mexico	185	236	289
Arizona	357	394	466
Utah	504	518	598
Nevada	33	53	64

*Includes consumption indicated by plants classified in the bread and other bakery products and the biscuit, crackers and pretzels industries which submitted detailed data on consumption of various specified materials.

†Computed by increasing reported consumption (column 1) by percentage which sales of establishments not reporting detailed data on materials consumption bore to sales of establishments reporting detailed materials consumption data.

‡Computed by increasing column 2 by percentage which maximum employment of establishments excluded from the census (single retail outlet bakeries) bore to average total employment of all establishments included in the census. It was necessary to use employment data because no sales data were available for single retail outlet bakeries. Note that because of the method of estimation these figures do not include flour used by bakeries with no employees.

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be plainly and conspicuously marked on the outside in terms of weight.

MASSACHUSETTS

All white bread and rolls must be enriched to conform to the standard and tolerances adopted under the provisions of the Federal Food, Drug and Cosmetic Act and the label for wrapped white bread must conform to the labeling requirements. (See page 3.) Enriched bread must be so labeled. Bread must be sold by weight and in units of 1 lb., 1½ lb. and multiples of 1 lb. In multiple loaves each unit must conform to the required weight. Unit weights do not apply to fancy bread weighing less than 4 oz. nor to loaves bearing in plain position a "plain statement of the weight of the loaf and name of the manufacturer." This information may appear on the wrapper or if unwrapped by means of a pan impression or label not larger than 1 by 1¾ in. nor smaller than 1 by 1½ in.

MICHIGAN

All white bread sold or offered for sale by retail food outlets must be standardized in 12 oz., 16 oz., 20 oz., 24 oz. and 32 oz. with 1 oz. tolerance. Wrapped bread must bear the "true net weight" and name and address of the manufacturer, jobber or retailer.

MINNESOTA

Every loaf of bread offered for sale must bear a label giving the name and address of the baker and a statement of net weight. Standard sizes are: 1 lb., 1½ lb. or any multiple of 1 lb. This information must be printed in type not smaller than 8 pt. capitals. In the case of unwrapped bread the information may appear on a sticker label and in the case of wrapped bread either printed upon the wrapper or if the wrapper consists of clear, transparent wax paper or cellophane the label must be inserted underneath the wrapper on top of the loaf. This insert label must be at least 2½ by 3½ in. so that it will not slip underneath loaf where it cannot be seen and it must be printed in bold face type that will be readily legible through the wrapper.

MISSISSIPPI

All bread manufactured for sale must be identified by marking in legible letters the minimum weight thereof with the following phrase "not less than." All bread must be wrapped in clean paper, each loaf separately, before being distributed for sale.

MISSOURI

There is no regulation requiring the wrapping of bread, but if wrapped it must bear a label containing the name and place of business of the manufacturer and an "accurate" statement of the weight.

MONTANA

Wrapped bread must be labeled in "plain, intelligible words and figures" with a correct statement of the net weight. A loaf of bread for sale must weigh 8 hours after baking one of the following weights: 1 lb., 1½ lb., 2 lb., 3 lb., 4 lb., 5 lb., 6 lb., or other multiple pound weights. Variations of 1 oz. per lb. over and 1 oz. per lb. under are permitted in individual loaves but the average weight of 25 loaves of any one unit or of any one kind must be not less than the weight prescribed for such unit.

NEBRASKA

Every loaf of bread made for sale must be one of the following weights: ½ lb., 1 lb., 1¼ lb., 1½ lb., and exact multiples of 1 lb. and no other weights. Each unit of a twin or multiple loaf must weigh one of the specified weights. The wrapper of each loaf of bread must have printed thereon in "plain conspicuous type" the weight of the loaf. Reasonable tolerances or variations are prescribed.

NEVADA

All bread manufactured, sold or offered for sale in the form of loaves must be one of the following standard weights: ½ lb., 1 lb., 1½ lb., or multiples of 1 lb. with reasonable variations in excess and deficiency allowed. A weight statement is permitted on bread wrappers for standard pound loaves as follows: "Minimum Net Weight—15 oz." In addition to the weight statement all bread must show the name of the manufacturer, packer or distributor and place of business.

NEW MEXICO

All bread offered for sale or sold must be of the following standard weights and no other: 1 lb., 1½ lb. or some multiple thereof. Allowable tolerances must not exceed ½ oz. per lb. over or ½ oz. per lb. under. Each loaf of bread offered for sale or sold must bear a label on which is plainly and distinctly printed the weight of the loaf stated in pounds or fractions of pounds together with the business name of the baker or manufacturer. In case of wrapped bread such information may be upon the wrapper of each loaf in a conspicuous place not hidden by folds of the wrapper. The label attached to an unwrapped loaf must be no larger than 1 by 1½ in. or not smaller than 1 by ¾ in.

NEW HAMPSHIRE

Before removal from the bakery section of an establishment, all loaves of bread must be wrapped in clean new paper, plainly showing its weight and the name of the manufacturer. All white bread must be enriched.

NEW JERSEY

All bread must be sold by weight. The weight of all loaves offered for sale must be specified by the baker or dealer to the consumer, if the consumer requires it. Bread, wrapped at bakeries in wax paper or otherwise for sanitary or other purposes in advance of delivery or sale, is considered as food in packaged form and must be plainly labeled. White bread must be enriched.

NEW YORK

Bread must not be manufactured for sale or sold or offered or exposed for sale otherwise than by weight. Weight standards are: 1 lb., 1½ lb., and multiples of 1 lb. Each unit of a multiple loaf must conform to standard weight. Weights are determined by the average weight of not less than 6 loaves. Such weights do not apply to loaves bearing in "a plain and conspicuous" position a "plain statement" of the net weight of the loaf and the name and address of the manufacturer upon the wrapper of each loaf if wrapped or if unwrapped upon a label affixed to the loaf in a sanitary manner. The statement upon the wrapper or label must be in plain, heavy, Gothic capital letters and figures not less than 5/32 in. in height and so placed as to appear on the top or side and not upon the end or bottom of the loaf. Unwrapped bread that is labeled may have the label upon the bottom of the loaf. White bread must be enriched.

NORTH CAROLINA

The net weight must be "plainly and conspicuously" marked on wrapped bread. All white bread including rolls and biscuits of the bread-dough type must be enriched.

NORTH DAKOTA

A loaf of bread must weigh 16 oz., 24 oz.,

Materials Consumed in U.S. Baking Industry by Kind, 1947

Note: These figures cover establishments primarily engaged in the manufacture of bakery products. Source: U.S. Bureau of the Census

(All figures in thousands)

Material	Total for the industries	Bakery products (except biscuit, crackers and pretzels) industry — Wholesale: Selling to grocers	Wholesale: Selling to hotels, restaurants, and institutions	Wholesale: Grocery chain bakeries	Retail: House-to-house	Retail: Retail multi-outlet	Biscuit, crackers and pretzels industry
Wheat flour—							
Sacks (100 lb.)	97,023	60,951	5,585	5,116	7,870	3,213	14,288
Value	$570,383	$358,719	$35,728	$31,238	$46,790	$21,043	$74,865
Sugar, cane and beet—							
Pounds	1,139,096	540,297	119,177	62,513	$4,615	93,973	238,521
Value	$97,904	$46,022	$10,103	$5,576	$7,236	$8,147	$20,820
Lard—							
Pounds	350,597	167,176	29,079	12,260	25,862	13,123	103,107
Value	$93,032	$44,038	$7,826	$3,296	$6,696	$3,635	$27,541
Shortening—							
Pounds	315,872	128,469	44,257	21,520	32,023	34,205	55,398
Value	$99,778	$40,150	$13,943	$7,515	$10,321	$11,278	$16,571
Other fats and oils—							
Pounds	125,238	25,810	7,360	**	**	10,560	70,943
Value	$37,700	$7,781	$2,461	**	**	$5,258	$18,790
Dried milk—							
Pounds	233,929	148,846	20,245	16,251	19,838	8,858	8,893
Value	$29,588	$18,736	$2,880	$2,257	$2,548	$1,586	$1,581
Frozen eggs—							
Pounds	196,702	92,663	24,474	20,759	22,429	27,238	9,139
Value	$66,169	$30,632	$8,374	$6,676	$7,676	$9,757	$3,104
Dried eggs—							
Pounds	526	265	131	*	90	52	288
Value	$1,125	$448	$156	*	$107	$67	$347
Per cent of coverage†	92.7	93.7	80.2	95.0	94.0	80.6	88.8

**Withheld to avoid disclosing figures for individual companies.

*Less than 500.

†Value of shipments of establishments reporting kinds of materials consumed, as a percentage of the total value of shipments of all establishments.

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or a whole multiple of 16 oz. These weights apply alike to each unit or a twin or multiple loaf. The required weight must as often be above as below the permissible weights. All white bread must be enriched.

OHIO

Every loaf of bread sold, manufactured for sale or exposed for sale must have affixed thereon a "plain statement in plain position" of the weight of the loaf, the business name and address of the maker, baker or manufacturer. In the case of wrapped bread the information must be stated on the wrapper of each loaf and in the case of unwrapped bread the information must appear by means of a pan impression or other mechanical means or may be stated on a label using plain legible type. Bread must not be sold otherwise than by weight and in units of not less than 16 oz.

OKLAHOMA

Bread manufactured outside the state must have pasted on each loaf a label having printed thereon the date and the hour of the day it was baked. White bread must be enriched.

OREGON

Bread baked for sale must be one of the following standard weights: 1 lb., 1½ lb., or multiples of 1 lb. The weight specified applies to each unit of a twin or multiple loaf. Wrapped bread must be marked plainly with the net weight.

PENNSYLVANIA

All wrapped bread must bear in a clear and legible manner the name of the bakery manufacturing the product. The name must clearly indicate the identity of the bakery in such a manner that its individual registration can be ascertained or the name and address of the distributor or wholesale dealer, preceded or followed by the words "Distributed by" or "Distributor" as the case may be. Packages bearing a packer's, a distributor's or wholesale dealer's name and address in lieu of the actual name of the bakery must bear a code identifying the manufacturer or bakery. All bakery products must show on the label that the bakery holds a Pennsylvania bakery license and that the goods are registered by stating "Reg., Pennsylvania Department of Agriculture." When transparent wrappers are used the printed statement may be inserted in a conspicuous position between the wrapper and the top of the loaf or printed on a band or wrapper around the top of the loaf.

RHODE ISLAND

Wrapped bread must have printed thereon the name and address of the manufacturer and the net weight. White bread must be enriched.

SOUTH CAROLINA

All white bread sold, or offered for sale, must be enriched, and all enriched bread sold in the state must be labeled in accordance with the regulations of the Federal Security Agency (see page 3) governing enriched bread sold in interstate trade. The requirements do not apply to bread made from the entire wheat with no parts of the wheat removed. A label must be on each individual loaf, either printed on the wrapper or on a band around the wrapped bread, or labeled by any other practical method.

SOUTH DAKOTA

There must be printed on the wrapper of every loaf of bread in plain and conspicuous type not smaller than 10 pt. Gothic capital letters and figures the name and address of the manufacturer of the bread, the net weight of the loaf and descriptive name or term designating the kind of bread, if it is not white bread. The net weight must be expressed in terms of one of the standard units of weight or in lieu of statement of weight, by the words, "South Dakota standard weight loaf." This information must be shown upon that portion of the bread wrapper which can be easily seen or read by the consumer. If transparent wrapping material is used the information may be printed on a label and inserted between the loaf and wrapping. Standard weights for loaves of bread are: 1 lb., 1½ lb., and multiples of ½ lb. All white bread must be enriched.

TENNESSEE

All bread sold, offered or exposed for sale in package form must carry the name of the product, name and address of the party responsible for placing it upon the market, correct weight and a complete list of the ingredients. The standards and definitions are the same as those promulgated by the Federal Food and Drug Administration.

TEXAS

All bread must be enriched except bread made from whole wheat flour or bread which contains no wheat flour. It is unlawful to sell or offer for sale enriched bread which fails to conform to the labeling requirements of the State Food and Drug Act and of the Federal Food, Drug and Cosmetic Act (see page 3) and the regulations promulgated thereunder. Bread to be sold must weigh one of the following standards of weight and no other: 1 lb. (16 oz.), 1½ lb. (24 oz.), 2 lb. (32 oz.), 3 lb. (48 oz.) or some other multiple of 1 lb. or 16 oz.

UTAH

All bread must be sold only in loaves of 1 lb. or multiples of 1 oz. in excess of 1 lb. Each loaf must have attached thereto a label plainly showing its correct weight and the name of the manufacturer. The weight markings on bread must be of type at least ⅛ in. in height, in plain Gothic letters and placed in such a position as to be plainly seen and not obscured or surrounded by other designs or printing as to make it difficult to be read.

VERMONT

Each loaf of bread sold or for sale must be wrapped separately in waxed paper, tissue paper or some similar wrapper or sanitary container. Variations from the marked weight may be as often above as below the marked weight and the average weight of all loaves of the same kind, not less than six in number available for weighing at the same time and place must at least equal the marked weight of such loaves.

VIRGINIA

All bread sold, offered or exposed for sale must have conspicuously affixed thereon a label printed in English in letters and figures not smaller than ⅛ in. in height, the net weight of the loaf when baked and the name and address of the baker or manufacturer. Tolerances and variations of weight must not exceed 1 oz. on 1 lb. loaves and 2 oz. on loaves weighing more than 2 lb.

WASHINGTON

All wrapped bread must have around it or attached thereto a label which properly indicates the weight and name and place of manufacture. A loaf of bread must weigh one of the following standard weights (12 hours after baking): 1 lb., 1½ lb., 2 lb., 3 lb., 4 lb., 5 lb. or other pound weights. All white bread must be enriched.

WEST VIRGINIA

All white bread, rolls and buns sold or offered for sale must be enriched and must be labeled "Enriched Bread," "Enriched Rolls" or "Enriched Buns." A label must appear on each loaf either on the wrapper or on a band around the wrapped bread, or by any other practical means.

WISCONSIN

The standard weights for loaves of bread for sale, offered or exposed for sale are: 1 lb., 1½ lb. or multiples of 1 lb. There is no specific requirement that bread be wrapped.

WYOMING

All white bread must be enriched to conform to the definitions and standards of identity as fixed and established by the Federal Security Agency pursuant to the provisions of the Federal Food, Drug and Cosmetic Act (see page 3). Label must conform to its labeling requirements.

Proposed Definitions and Standards of Identity for Bread

THE definitions and standards of identity for various kinds of breads and rolls or buns reprinted herewith are from the Aug. 8, 1950, issue of the Federal Register. In this issue, the Food and Drug Administration of the Federal Security Agency listed 79 detailed findings of fact and "concluded that the adoption of the following definitions and standards of identity for various kinds of breads and rolls or buns will promote honesty and fair dealing in the interest of consumers." During the early months of 1951, the government was studying exceptions to the tentative order and was expected to issue the final standards before mid-year. They were to become effective 90 days following promulgation.

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§ 17.1 **Bread, white bread, and rolls, white rolls, or buns, white buns; identity; label statement of optional ingredients.** (a) Each of the foods bread, white bread, rolls, white rolls, buns, white buns is prepared by baking a kneaded yeast-leavened dough, made by moistening flour with water or with one or more of the optional liquid ingredients specified in this section or with any mixture of water and one or more of such ingredients. The term "flour," unqualified, as used in this section, includes flour, bromated flour, and phosphated flour. The potassium bromate in any bromated flour used and the monocalcium phosphate in any phosphated flour used shall be deemed to be optional ingredients in the bread or rolls. Each of such foods is seasoned with salt, and in its preparation one or more of the optional ingredients prescribed by subparagraphs (1) to (14), inclusive, of this paragraph may be used:

(1) Shortening, which may contain lecithin and which may contain not more than 25% by weight of mono- and diglycerides of fat-forming fatty acids.

(2) Milk, concentrated milk, evaporated milk, sweetened condensed milk, dried milk, skim milk, concentrated skim milk, evaporated skim milk, sweetened condensed partly skimmed milk, sweetened condensed skim milk, nonfat dry milk solids, or any combination of two or more of these; except that any such ingredient or combination, together with any butter and cream used, is so limited in quantity or composition as not to meet the requirements for milk or dairy ingredients prescribed for milk bread by § 17.3.

(3) Buttermilk, concentrated buttermilk, dried buttermilk, sweet cream buttermilk, concentrated sweet cream buttermilk, dried sweet cream buttermilk, cheese whey, concentrated cheese whey, dried cheese whey, milk proteins, or any combination of two or more of these.

(4) Liquid eggs, frozen eggs, dried eggs, egg yolks, frozen egg yolks, dried yolks, egg white, frozen egg white, dried egg white, or any combination of two or more of these.

(5) Sugar, invert sugar (in congealed or syrup form), light-colored brown sugar, refiner's syrup, dextrose, honey, corn syrup, glucose syrup, dried corn syrup, dried glucose syrup, nondiastatic malt syrup, nondiastatic dried malt syrup, molasses (except blackstrap molasses), or any combination of two or more of these.

(6) Malt syrup, dried malt syrup, malted barley flour, malted wheat flour, each of which is diastatically active; harmless preparations of enzymes obtained from Aspergillus oryzae; or any combination of two or more of these.

(7) Inactive dried yeast of the genus Saccharomyces cerevisiae; but the total quantity thereof is not more than 2 parts for each 100 parts by weight of flour used.

(8) Harmless lactic-acid producing bacteria.

(9) Corn flour (including finely ground corn meal), potato flour, rice flour, wheat starch, cornstarch, milo starch, potato starch, sweet potato starch (any of which may be wholly or in part dextrinized), dextrinized wheat flour, soy flour, or any combination of two or more of these; but the total quantity thereof is not more than 3 parts for each 100 parts by weight of flour used.

(10) Ground dehulled soybeans, which may be heat-treated and from which oil may be removed, but which retain enzymatic activity; but the quantity thereof is not more than 0.5 part for each 100 parts by weight of flour used.

(11) Calcium sulfate, calcium lactate, calcium carbonate, ammonium phosphates, ammonium sulfate, ammonium chloride, monocalcium phosphate, dicalcium phosphate, or any combination of two or more of these; but the total quantity of such ingredients (not including the monocalcium phosphate in any phosphated flour used) is not more than 0.25 part for each 100 parts by weight of flour used.

(12) Potassium bromate, potassium iodate, calcium peroxide, or any combination of two or more of these; but the total quantity thereof (including the potassium bromate in any bromated flour used) is not more than 0.0075 part for each 100 parts by weight of flour used.

(13) (i) Monocalcium phosphate, but the total quantity thereof, including the quantity in any phosphated flour used and any quantity added as permitted by subparagraph (12) of this paragraph, is more than 0.25 part but not more than 0.75 part by weight for each 100 parts by weight of flour used; or

(ii) A vinegar, in a quantity equivalent in acid strength to not more than 1 pint of 100-grain distilled vinegar for each 100 lb. of flour used; or

(iii) Calcium propionate, sodium propionate, or any mixture of these, but the total quantity thereof is not more than 0.32 part for each 100 parts by weight of flour used; or

(iv) Sodium diacetate, but the quantity thereof is not more than 0.4 part for each 100 parts by weight of flour used; or

(v) Lactic acid, in such quantity that the pH of the finished bread is not less than 4.5.

(14) Spice, with which may be included spice oil and spice extract.

Each of such foods contains not less than 62% of total solids, as determined by the method prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," Sixth Edition 1945, page 260, section 20.84 (a), "Total Solids in Entire Loaf of Bread . . . Official," except that if the baked unit weighs 1 lb. or more one entire unit is used for the determination, and if the baked unit weighs less than 1 lb., such number of entire units as weigh 1 lb. or more is used for the determination.

(b) Bread, white bread is baked in units each of which weighs ½ lb. or more after cooling. Rolls, white rolls, and buns, white buns are baked in units each of which weighs less than ½ lb. after cooling.

(c) (1) When any optional ingredient, except a vinegar, permitted by paragraph (a) (13) of this section is used, the label shall bear the statement "——— added to retard spoilage," the blank being filled in with the name by which the ingredient used is designated in such paragraph.

(2) When an optional ingredient permitted by paragraph (a) (14) of this section is used, the label shall bear the statement "spiced" or "spice added" or "with added spice"; but in lieu of the word "spice" in such statements, the common or usual name of the spice may be used.

(3) Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the words and statements specified in this paragraph shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter.

§ 17.2 **Enriched bread and enriched rolls or enriched buns; identity; label statement of optional ingredients.** (a) Each of the foods enriched bread, enriched rolls, enriched buns conforms to the definition and standard of identity, and is subject to the require-

ment for label statement of optional ingredients, prescribed for bread by § 17.1 (a) and (c), except that:

(1) Each such food contains in each pound not less than 1.1 milligrams and not more than 1.8 milligrams of thiamine, not less than 0.7 milligram and not more than 1.6 milligrams of riboflavin, not less than 10.0 milligrams and not more than 15.0 milligrams of niacin or niacinamide, and not less than 8.0 milligrams and not more than 12.5 milligrams of iron (Fe).

(2) Each such food may also contain as an optional ingredient added vitamin D in such quantity that each pound of the finished food contains not less than 150 U.S.P. units and not more than 750 U.S.P. units of vitamin D.

(3) Each such food may also contain as an optional ingredient added harmless calcium salts in such quantity that each pound of the finished food contains not less than 300 milligrams and not more than 800 milligrams of calcium (Ca).

(4) Each such food may also contain as an optional ingredient wheat germ or partly defatted wheat germ; but the total quantity thereof, including any wheat germ or partly defatted wheat germ in any enriched flour used, is not more than 5% of the flour ingredient,

(5) Enriched flour may be used, in whole or in part, instead of flour.

(6) The limitation prescribed by § 17.1 (a) (2) on the quantity and composition of milk and dairy ingredients does not apply.

As used in this section, the term "flour," unqualified, includes bromated flour and phosphated flour; the term "enriched flour" includes enriched bromated flour. The prescribed quantity of any substance referred to in subparagraphs (1), (2), and (3) of this paragraph may be supplied, or partly supplied, through the use of enriched flour; through the direct addition of such substance under the conditions permitted by § 15.10 of this chapter for supplying such substances in the preparation of enriched flour; through the use of any ingredient containing such substance, which ingredient is required or permitted by § 17.1 (a) within the limits, if any, prescribed by such section, as modified by subparagraph (6) of this paragraph; through the use of wheat germ; or through any two or more of such methods.

(b) Enriched bread is baked in units each of which weigh ½ lb. or more after cooling. Enriched rolls or enriched buns are baked in units each of which weighs less than ½ lb. after cooling.

§ 17.3 **Milk bread and milk rolls or milk buns; identity; label statement of optional ingredients.** (a) Each of the foods milk bread, milk rolls, milk buns conforms to the definition and standard of identity, and is subject to the requirements for label statement of optional ingredients, prescribed for bread and rolls or buns by § 17.1 (a) and (c), except that:

(1) Milk is used as the sole moistening ingredient in preparing the dough; or in lieu of milk one or more of the dairy ingredients prescribed in paragraph (c) of this section is used, with or without water, in a quantity containing not less than 8.2 parts by weight of milk solids for each 100 parts by weight of flour used (including any bromated flour or phosphated flour used).

(2) No ingredient permitted by § 17.1 (a) (3) is used.

(b) Milk bread is baked in units each of which weighs ½ lb. or more after cooling. Milk rolls or milk buns are baked in units each of which weighs less than ½ lb. after cooling.

(c) The dairy ingredients referred to in paragraph (a) (1) of this section are concentrated milk, evaporated milk, sweetened condensed milk, dried milk, and a mixture of butter or cream or both with skim milk, concentrated skim milk, evaporated skim milk, sweetened condensed skim milk, sweetened condensed partly skimmed milk, nonfat dry milk solids, or any two or more of these, in such proportion that the weight of nonfat milk solids in such mixture is not more than 2.3 times and not less than 1.2 times the weight of the milk fat therein.

§ 17.4 **Raisin bread and raisin rolls or raisin buns; identity; label statement of optional ingredients.** (a) Each of the foods raisin bread, raisin rolls, raisin buns conforms to the definition and standard of identity, and is subject to the requirements for label statement of optional ingredients, prescribed for bread and rolls or buns by § 17.1 (a) and (c), except that:

(1) Not less than 50 parts by weight of seeded or seedless raisins are used for each 100 parts by weight of flour used (including any bromated flour or phosphated flour used).

(2) Water extract of raisins may be used, but not to replace raisins.

(3) The baked units may bear icing or frosting.

(4) The limitation prescribed by § 17.1 (a) (2) on the quantity and composition of dairy ingredients does not apply.

(5) In determining its total solids, instead of following the direction "Grind sample just to pass a 20-mesh sieve" (Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists, Sixth Edition, 1945, page 260, section 20.84 (a), under "Total Solids in Entire Loaf of Bread . . . Official"), comminute the sample by passing it twice through a food chopper.

(b) Raisin bread is baked in units each of which weighs ½ lb. or more after cooling. Raisin rolls or raisin buns are baked in units each of which weighs less than ½ lb. after cooling.

§ 17.5 **Whole wheat bread, graham**

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Write for practical information and formulas for baked products and icings

U.S. Average Retail Price of White Bread

Note: In leading cities per pound (baked weight) of white bread, in cents. Source: U.S. Department of Labor.

Year—	Jan.	Feb.	Mch.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av'ge
1950	14.0	14.0	14.0	14.0	14.0	14.0	14.2	14.6	14.6	14.7	14.7	14.7	14.3
1949	13.9	13.9	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
1948	13.8	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
1947	11.6	11.7	12.1	12.5	12.4	12.5	12.5	12.5	12.6	12.7	13.4	13.6	12.5
1946	8.8	8.9	8.9	9.3	9.5	10.6	10.7	11.6	11.6	11.6	11.5	11.5	10.4
1945	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
1944	8.9	8.8	8.8	8.7	8.7	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
1943	8.8	8.8	8.8	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
1942	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
1941	7.8	7.8	7.8	7.8	7.8	7.9	7.9	8.3	8.5	8.7	8.6	8.6	8.1
1940	8.0	8.1	8.1	8.2	8.2	8.1	8.1	8.1	8.1	7.8	7.8	7.8	8.0
1939	8.0	8.0	7.9	7.9	7.9	7.9	7.9	7.8	7.8	7.8	7.8	7.8	7.9
1938	8.8	8.8	8.8	8.8	8.8	8.8	8.7	8.6	8.3	8.2	8.1	8.1	8.6

bread, entire wheat bread, and whole wheat rolls, graham rolls, entire wheat rolls, or whole wheat buns, graham buns, entire wheat buns; identity; label statement of optional ingredients. (a) Each of the foods whole wheat bread, graham bread, entire wheat bread, whole wheat rolls, graham rolls, entire wheat rolls, whole wheat buns, graham buns, entire wheat buns conforms to the definition and standard of identity, and is subject to the requirements for label statement of optional ingredients, prescribed for bread, rolls, and buns by § 17.1 (a) and (c), except that:

(1) The dough is made with whole wheat flour, and no flour is used therein.

(2) The limitation prescribed by § 17.1 (a) (2) on the quantity and composition of dairy ingredients does not apply.

(3) The total weight of calcium propionate, sodium propionate, or mixtures of these used is not more than 0.38 part for each 100 parts by weight of the whole wheat flour used. As used in this section, the term "flour," unqualified, includes flour, enriched flour, bromated flour, enriched bromated flour, and phosphated flour; the term "whole wheat flour" includes whole wheat flour and bromated whole wheat flour. The potassium bromate in any bromated whole wheat flour used shall be deemed to be an optional ingredient in the whole wheat bread or whole wheat rolls.

(b) Whole wheat bread, graham bread, or entire wheat bread is baked in units each of which weighs ½ lb. or more after cooling. Whole wheat rolls, graham rolls, entire wheat rolls, whole wheat buns, graham buns, or entire wheat buns are baked in units each of which weighs less than ½ lb. after cooling.

§ 17.6 **Breads and rolls or buns made with combinations of flour, whole wheat flour, cracked wheat, and crushed wheat; identity; label statement of optional ingredients.** (a) The foods for which definitions and standards of identity are prescribed by the section are the foods each of which conforms to the definition and standards of identity, and is subject to the requirements for label statement of optional ingredients, prescribed for bread and rolls by § 17.1 (a) and (c), except that:

(1) The bread, roll, or bun is made with a combination of two or more of the following wheat ingredients, in which the weight of each such ingredient used is not less than 20% of the weight of such combination:

(i) Flour (including bromated flour and phosphated flour).

(ii) Whole wheat flour (including bromated whole wheat flour).

(iii) Cracked wheat.

(iv) Crushed wheat.

(2) The limitation prescribed by § 17.1 (a) (2) on the quantity and composition of dairy ingredients does not apply.

(3) The total weight of calcium propionate, sodium propionate, or mixtures of these used is not more than 0.38 part for each 100 parts by weight of such mixture.

(b) The potassium bromate in any bromated flour or bromated whole wheat flour used and the monocalcium phosphate in any phosphate flour used shall be deemed to be optional ingredients in the finished baked products.

(c) If such food is baked in units each of which weighs ½ lb. or more after cooling, the name of such food is "——— bread"; if in units each of which weighs less than ½ lb. after cooling, "——— rolls" or "——— buns," the blank being filled in each instance with the names of the wheat ingredients, in the order of predominance, if any, by weight of such ingredients in the combination used in making the bread, as for example, "white and whole wheat bread." For the purposes of this provision, the name of the wheat ingredient specified in paragraph (a) (1) (i) of this section is "white"; in paragraph (a) (1) (ii) is "whole wheat," "graham," or "entire wheat"; in paragraph (a) (1) (iii) is "cracked wheat"; and in paragraph (a) (1) (iv) is "crushed wheat."

§ 17.7 **Unsalted breads and rolls or buns; identity; label statement of optional ingredients.** (a) Unsalted breads and unsalted rolls or buns are the foods each of which conforms to the definition and standard of identity, and is subject to the requirements for label statement of optional ingredients, prescribed for kinds of bread and rolls or buns by § 17.1, 17.2, 17.3, 17.4, 17.5, and 17.6, except that no salt is used in their preparation.

(b) The name of each kind of unsalted bread and unsalted roll or bun is the word "unsalted," followed by the name of the kind of bread and roll or bun prescribed in the definition and standard of identity therefor.

U.S. Larger Bakeries

American Bakeries Co., Inc., Atlanta, Ga.
American Stores, Philadelphia, Pa.
Barbara Ann Baking Co., Ltd., Los Angeles, Cal.
Becker's Bakery, Spartanburg, S.C.
Bell Bakeries, Inc., New York, N.Y.
Bluebird Baking Co., Dayton, Ohio.
Braun Baking Co., Pittsburgh, Pa.
Brockelman Bros., Inc., Fitchburg, Mass.
Brown-Greer Co., Inc., Knoxville, Tenn.
Burney Bros., Chicago, Ill.
Burry Biscuit Co., Elizabeth, N.J.
Campbell-Taggart Associated Bakeries, Inc., Dallas, Texas.
Capital Bakers, Inc., Harrisburg, Pa.
Carr-Consolidated Biscuit Co., Wilkes Barre, Pa.
Claussen's, H. H., Sons, Inc., Augusta, Ga.
Colonial Baking Co., Inc., Memphis, Tenn.
Columbia Baking Co., Atlanta, Ga.
Continental Baking Co., Inc., New York, N.Y.
Cushman's Sons, Inc., New York, N.Y.
Donaldson Baking Co., Columbus, Ohio.
Dortch Baking Co., Atlanta, Ga.
Drake Bakeries, Inc., Brooklyn, N.Y.
Dugan Bros. of New Jersey, Inc., Newark, N.J.
Duvernoy & Sons, Inc., New York, N.Y.
Ebinger, Brooklyn, N.Y.
Eddy Bakeries, Inc., Helena, Mont.
Fairfax Bread Co., San Francisco, Cal.
Federal Bakeries, Inc., Davenport, Iowa.
Feuchtenberger, L. D., Bakeries, Inc., Bluefield, W. Va.
Freihofer, William, Baking Co., Inc., Philadelphia, Pa.
General Baking Co., New York, N.Y.
Gladness Bakeries, Inc., Minneapolis, Minn.
Gordon Baking Co., Inc., Detroit, Mich.
Great A. & P. Tea Co., New York, N.Y.
Grocers Baking Co., Louisville, Ky.
Hathaway Bakeries, Inc., Cambridge, Mass.
Helms Bakery, Los Angeles, Cal.
Holzheierlein, M., & Sons, Inc., Washington, D.C.
Horn & Hardart Co., Inc., New York, N.Y.
Interstate Bakeries Corp., Kansas City, Mo.
Kilpatrick's Marvel Bakery, San Francisco, Cal.
Kroger Grocery & Baking Co., Cincinnati, Ohio.
Langendorf United Bakeries, Inc., San Francisco, Cal.
McGough Bakeries Corp., Birmingham, Ala.
Macklem Baking Co., Inc., Denver, Colo.
Manischewitz, B., Co., Jersey City, N.J.
Metz Bro. Baking Co., Sioux City, Iowa.
Michigan Bakeries, Inc., Grand Rapids, Mich.
Midland Bakeries Co., Peoria, Ill.
Miller-Parrott Baking Co., Terre Haute, Ind.
Mohican Co., New York, N.Y.
National Biscuit Co., New York, N.Y.
National Tea Co., Chicago, Ill.
New System Bakery Corp., Columbus, Ohio.
Nissen, John J., Baking Co., Portland, Me.
Nolde Bros., Inc., Richmond, Va.
Omar, Inc., Omaha, Neb.
Petersen, P. F., Baking Co., Inc., Omaha, Neb.
Piper, H., Co., Chicago, Ill.
Purity Bakeries Corp., Chicago, Ill.
Quality Bakers of America, Inc., New York, N.Y.
Regan Bros. Co., Minneapolis, Minn.
Safeway Stores, Inc., San Francisco, Cal.
Schulze Baking Co., Chicago, Ill.
Smith's Bakery, Inc., Mobile, Ala.
Spaulding Bakeries, Inc., Binghamton, N.Y.
Stroehmann Bros. Co., Williamsport, Pa.
Sunshine Biscuits, Inc., Long Island, N.Y.
United Bakeries, Inc., Chicago, Ill.
United Biscuit Co. of America, Chicago, Ill.
Van De Kamp's Holland Dutch Bakeries, Inc., Los Angeles, Cal.
Vories Baking Co., Inc., New Orleans, La.
Wagner Baking Corp., Newark, N.J.
Ward Baking Co., New York, N.Y.
White Baking Co., Indianapolis, Ind.
Wolferman, Fred, Inc., Kansas City, Mo.
Zinsmaster Baking Co., Inc., Minneapolis, Minn.

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AVENUES OF OPPORTUNITY — Color, sound slide film, 22 min. Developed as sales training aid for bakers to improve the selling techniques of bakeshop sales girls. Gives practical examples of suggestive selling techniques. Apply to: **Fleischmann Division, Standard Brands, Inc., 595 Madison Ave., New York 22, N.Y.**

THE BAKING INDUSTRY—Film No. 305, 400 ft. This is an occupational informative type. It shows various jobs in baking industry. Producer, Vocational Guidance Films, Inc. Apply to: **Carl F. Mahnke Productions, 215 E. 3rd St., Des Moines 9, Iowa.**

BREAD—1 reel, 16 mm., sound, black and white film, 10 min.; produced 1946. Presents the story of bread from grain to finished loaf. Shows also cooling, slicing and wrapping of bread. Apply to: **Encyclopaedia Britannica Films, Inc., 20 N. Wacker Drive, Chicago 6, Ill.**

BREAD BOUQUET—1 reel, 16 mm., sound motion, color film, 30 min. Shows story of a single yeast cell's evolution from laboratory test tube, through the growing and processing steps in modern yeast plant, to the millions of pounds of compressed yeast that supply the "bouquet" of good bread. Apply to: **Fleischmann Div., Standard Brands, Inc., 595 Madison Ave., New York 22, N.Y.**

THE BUDDING OF YEAST CELLS—One 150-ft. reel, 16 mm., silent film, 6 min. Shows reproduction and growth of yeast from a single cell. Shows by time-lapse cinemicrography, the growth and reproduction of yeast from a single cell. Life processes of cells extending over a period of eight hours are condensed into a showing time of two minutes. Apply to: **Standard Brands, Inc., Home Office Library, New York, N.Y.**

THE COMMERCIAL PRODUCTION OF YEAST—3 reels, 16 mm., silent, 45 min. Gives picture of how yeast is produced for commercial purposes. Special emphasis is placed on production, cleanliness, efficiency and the testing of each batch to insure strength and uniformity. This film cannot be loaned. Special arrangement can be made for showing by a Fleischmann Div. representative when the film is available. Apply to: **Standard Brands, Inc., Home Office Library, New York, N. Y.**

ENZYMES—3 reels, 16 mm., silent, black and white film, 45 min. Portrays action of enzymes with particular reference to part they play in the production of bread during fermentation processes. No rental charge. Apply to: **C. G. Harrel, Director, Dept. of Visual Education, 208 Third Ave. S.E., Minneapolis, Minn.**

ENZYMES IN DOUGH FERMENTATION —3 reels, 16 mm., silent film, 45 min. Technical film. Illustrates and explains action of the principal enzymes in bread making and stresses importance of malt of a low regulated diastatic content in production of uniform high quality bread. Also points out how yeast raises and conditions the dough. Apply to: **Standard Brands, Inc., Home Office Library, New York, N.Y.**

FOOD OF THE WORLD—20 min., 16 mm., color, sound. Presents bread of many lands, followed by an excellent portrayal of American (wholesale) bread making methods from farm to bread rack. Available for showing in all sections except portions of some eastern states. Apply to: **Bakers of America Program, 20 N. Wacker Drive, Chicago 6, Ill.**

400 YEARS IN FOUR MINUTES—16 mm., color, sound, motion picture, 23 min. Cake making, produced in 1945, General Mills, Inc. Available upon request are a 35 mm. film strip which reviews the highlights of the film, teachers' guide books, recipe booklets and question sheets for class or audience. Apply to: **General Mills, Inc., Film Library, 400 2nd Ave. S., Minneapolis 1, Minn.**

FROZEN CHERRIES — 1 reel, 16 mm., sound motion, color film, 14 min. Story of "Frozen Cherries" from the orchard to preparation and use in bakery products. Apply to: **Fleischmann Div., Standard Brands, Inc., 595 Madison Ave., New York 22, N.Y.**

GIVE US THIS DAY—THE STORY OF BREAD — 2 reels; 16 mm. sound film, black and white, 25 min. By Anheuser-Busch, Inc. History, development, making scientific control, food value, drama and romance of bread. Includes story of the new Enriched Bread made with added vitamins and minerals natural to whole wheat. Apply to: **C. G. Harrel, Director, Dept. of Visual Education, American Society of Bakery Engineers, 208 Third Ave. S.E., Minneapolis, Minn.**; also **American Institute of Baking, 1135 Fullerton Ave., Chicago 14, Ill.**

GOLDEN GLORY—16 mm., sound, 1 reel, black and white, 30 min. Story of Scientist Mark Carleton's search for and discovery of "rust-resistant strain of wheat. Apply to: **Standard Brands, Inc., Publicity Dept., 595 Madison Ave., New York 22, N.Y.**

HOLIDAY HAPPINESS—1 reel, 16 mm., sound motion, color film, 30 min. Covers every phase of cake decorating and icing for special occasions. Also shows how jelly transfers may be used for quick, inexpensive fancy designs. Suitable for consumer groups, bakery trade schools and bakery trade, only in those locations where the Fleischmann's School for Bakers has been conducted. Apply to: **Standard Brands, Inc., Fleischmann Div., 595 Madison Ave., New York 22, N.Y.**

THE HOUSE THAT FAITH BUILT—16 mm., monochrome-sound, 4 reels, 40 min. History and products of Anheuser-Busch told in authentic historical sequences that merge into a powerful human interest story. Produced by Wilding Picture Productions, Inc. Apply to: **Anheuser-Busch, Inc., St. Louis, Mo.**

THE HUMAN ELEMENT IN PIE CRUST MAKING—1 reel, 16 mm., silent, black and white film, 20 min. Shows the methods of making three different types of pie crusts from one dough by means of different handling. Shows correct and incorrect procedure from the weighing of the ingredients to the finished pies. Nontechnical film. Apply to: **C. G. Harrel, Director, Dept. of Visual Education, American Society of Bakery Engineers, 208 Third Ave. S.E., Minneapolis, Minn.**

IN THE DOUGH—2 reels, 16 mm., silent, 30 min. Brief historical background of baking and portrays influence of various ingredients contained in bread formula illustrating their effect upon quality products. Also touches upon various external factors which influence bread in its production and clearly illustrates importance of the enzyme diastase in furnishing available sugar supplies from starch. Apply to: **C. G. Harrel, Director, Dept. of Visual Education, American Society of Bakery Engineers, 208 Third Ave., S.E., Minneapolis, Minn.**

THE INSIDE STORY OF CAKE BAKING —1,600 ft., 16 mm., sound, color film, 30 min. Can see inside of a cake while it bakes due to development of a new process called micro-baking which is combined with microphotography and what happens to the structure and texture of a cake while it bakes—why certain ingredients combine to give superb results. Apply to: **Swift & Co. Refinery Dept., Union Stock Yards, Chicago 9, Ill.**

JUNGLE BREAD—Depicts the processes employed to make white bread by a primitive Dutch Guinea race. Expedition to produce this film sponsored by Van de Kamp's Bakeries, Los Angeles. Apply to: **Van de Kamp's Bakeries, Public Relations Dept., 2930 Fletcher Ave., Los Angeles 26, Cal.**

A LOAF OF BREAD—16 mm., silent, 1 reel. Raising of wheat, making of flour, baking bread. Apply to: **Educational Film Service, 180 N. Union St., Battle Creek, Mich.**; also: **Baily Films, Inc., 2044 N. Berendo St., Hollywood 27, Cal.**

THE MARKET FOR SWEET BAKED PRODUCTS (SURVEY) — 35 mm., sound slide, film and record, part color, 25 min. Film summarizes nationwide survey on housewife preference for sweet baked products and other desserts. Dramatically climaxed by full-color sequence of sweet baked products being discussed. Apply to: **Standard Brands, Inc., Fleischmann Div., 595 Madison Ave., New York 22, N.Y.**

MICROSCOPIC PLANT LIFE IN THE BAKESHOP—2 reels, 16 mm., silent, black and white film, 30 min. Portrays methods of propagation of mold; how mold spreads and the factors influencing and governing its growth from the spore stage. Methods of preventing mold growth are set forth with suggestions as to how the destruction of food—particularly bread—can be prevented. Part II of the film clearly describes yeast. Apply to: **C. G. Harrel, Director, Dept. of Visual Education, American Society of Bakery Engineers, 208 Third Ave. S.E., Minneapolis, Minn.**

MODEST MIRACLE—16 mm., sound motion, 1 reel, black and white, 30 min. Biographical story of Dr. Robert R. Williams' isolation and synthesis of vitamin B_1. The subsequent enrichment of bread with this vitamin shows the cooperation between science and industry for benefit of all mankind. Apply to: **Standard Brands, Inc., Fleischmann Div., 595 Madison Ave., New York 22, N.Y.**

MORE POWER TO YOU—Sound and color, 26 min. Produced by Caravel Films, Inc., for National Bakery Division of the Great Atlantic & Pacific Tea Co. Shows interior scenes of the 150-year-old Hook Mill at East Hampton, L.I. Story of the staff of life. Major emphasis has been placed on nutrition. Apply to: **N.M.C.A. Motion Picture Bureau, 347 Madison Ave., New York 17, N.Y.**, or **19 S. La Salle St., Chicago 3, Ill.**, or **351 Turk St., San Francisco 2, Cal.**, or **710 Bart Bldg., 1700 Patterson Ave., Dallas 1, Texas.**

ORNAMENTING AND DECORATING FANCY CAKES—1 reel, 16 mm., silent, 20 min. Shows how fancy cakes are decorated by use of a tube and also with the partial use of ornaments previously made. About half of film is in color and for this reason special application for showing under specific conditions must be made. Nontechnical film. Apply to: **C. G. Harrel, Director, Dept. of Visual Education, American Society of Bakery Engineers, 208 Third Ave. S.E., Minneapolis, Minn.**

OUR DAILY BREAD—Sound, 22 min. Produced by the Catholic Foreign Mission Society of America. Based on the prayer "Give us this day our daily bread" and what it means to the people of the Orient. Highlight of film is a locust invasion, one of the most spectacular scenes ever filmed. Apply to: **The Maryknoll Bookshelf, Maryknoll P. O., N.Y.**

OUR DAILY BREAD—"RKO THIS IS AMERICA SERIES"—35 mm., black and white, sound, 18 min. Romance and history of bread. Traces production from wheat field to modern bakery. Apply to: **International Harvester, 180 N. Michigan Ave., Chicago, Ill.**; or **RKO Radio Pictures, Inc., 1270 Avenues of Americas, New York 20, N.Y.**

PRETZEL TWISTING—Taken at Allentown, Pa., plant of Pennsylvania Pretzel Co., and features a school for pretzel twisters.

PRINCIPLES OF BAKING — 1 reel, 16 mm., sound, black and white film, 10 min. Produced in 1945. Instructional film covers the principles of baking involved in many batters and doughs. Narrator describes essential ingredients and their functions. Apply to: **Encyclopaedia Britannica Films, Inc., 20 N. Wacker Drive, Chicago 6, Ill.**

PRODUCTION OF 5¢ PIES—1 reel, 16 mm., silent, color film, 15 min. Shows operations in a large modern pie bakery turning out a large production of small pie units. Portrays the mechanics of handling the small pie units efficiently by means of modern machinery, including packaging. Apply to: **C. G. Harrel, Director, Dept. of Visual Education, American Society of Bakery Engineers, 208 Third Ave. S.E., Minneapolis, Minn.**

ROLLS IN THE MAKING—2 reels, 16 mm. silent, black and white film, 25 min. Shows the procedure for making up a vari-

For Additional Facts:

Flour Section - Pages 2-42
Bibliography, Page 39
Enrichment, Page 3
Flour Prices, Pages 3, 20
Flour Production, Page 22
Packaging and Labeling Laws, Pages 5-11

Topical Index - Page 125

Trade Associations and Officers - - Page 122

ety of shapes of rolls. Film is of particular interest to retail bakers and those who desire to know more about the craftsmanship of baking. Varieties included are a few of the refrigerated types. Apply to: **C. G. Harrel, Director, Dept. of Visual Education, American Society of Bakery Engineers, 208 Third Ave. S.E., Minneapolis, Minn.**

SALES WAYS—35 mm., color, sound, slide film and record, 25 min. Instructive exposition in cartoon style of reasons why good "sales ways" are as good for bakery sales girls as they are for bakery operators. Has unusually successful approach to selling bakery sales girls on better sales ways by talking from her own point of view and self interest. Apply to: **Fleischmann Div., Standard Brands, Inc., 595 Madison Ave., New York 22, N.Y.**

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INDEX

Acreage (See Crops)
Activity—Canadian Mills 25
Ft. Worth-Dallas Mills 22
Kansas Mills 22
Kansas City Mills 22
Minneapolis Mills 24
Minnesota Mills 24
Montana Mills 24
Nebraska Mills 22
North Dakota Mills 24
Northwest Mills 24
Oklahoma Mills 22
Omaha Mills 22
Salina Mills 22
South Dakota Mills 24
Southwest Mills 22
Texas Mills 22
U.S. Mills 26
Wichita Mills 22
Agene—Flour Bleaching 14
Aging, Artificial 14
Alabama—Crops 84-90
Albania—Crops 82-85, 88
Duties on Flour and Grain 48
Alberta—Crops 85
Elevators 70
Alcohol—Rye 65
Alfalfa Meal—Analysis 98
Production 93, 100
Used as Feeds 102
Algeria—Crops 82-85, 88
Duties on Flour and Grain 53
American Bakers Assn.—Presidents ... 119
Analysis Table—Feedstuffs 98
Animal—Feed Use Per Population by State 103
Antigua—Duties on Flour and Grain.. 50
Argentina—Crops 82-85, 88
Flour and Grain, Duties on..... 52
Ash—Content, Flour 14
Associated Retail Bakers of America—Presidents 121
Associations—Baker 123
Canadian 124
Denmark 124
Feed 122
Flour 122
Grain 122
India 124
Italy 124
Milling 122
Netherlands 124
Atchison—Flour Milling Capacity 24
Flour Mills 24
Australia—Bleaching Regulations 43
Crops 82-85, 88
Flour and Grain, Duties on 54
Flour, Exports, Crop Years 46
Austria—Crops 82-85, 88
Flour and Grain, Duties on 48
Bags—Flour, Regulations Prohibiting Re-Use 3
Bahamas—Flour and Grain, Duties on 50
Bakeries—U.S., Larger Companies 118
U.S., Number of 112
Bakers of America Program 111
Baking—Industrial Films 116
Baking Industry—Census Reports, U.S. 112-115
Cost of Materials, U.S. 112-115
Employees, U.S. 112
Employees' Wages, U.S. 112
Establishments, List of Larger, U.S. 118
Establishments, U.S., Number of.... 112
Expenditures, U.S. 112
Flour Consumption, U.S. 121, 122
Products, U.S., Value of 112, 113
Baking Schools—List of 121
Baltimore—Chamber of Commerce, Officers 74
Elevators 70
Receipts 75
Shipments 75
Barbados—Flour and Grain, Duties on 50
Barley—Carryover 107
Contract Grades 56-64
Crops 83, 86, 88, 90
Definition, Feedingstuffs 96
Exports, Canada, Crop Years..... 35
Exports, U.S. 38
Exports, U.S., Lend Lease 38
Exports, U.S., UNRRA 38
Food Products, Consumption in U.S. 39
Futures Trading 56-64
Imports, U.S. 34
Prices, Index Numbers of 108
Receipts and Shipments 75-81
Belgium—Crops 82, 85, 88
Flour and Grain, Duties on 48
Mills 46
Self-Rising Flour Regulations 44
Benzoyl Peroxide—Flour Bleach 14
Bermuda—Flour and Grain, Duties on 50
Bibliography—Milling, Baking, Wheat and Feed, Nutrition 39
Biscuit—Census Report 112-115
Bleached Flour—Agents for 14
Foreign Regulations 43
State Labeling Laws 5-11
Bleaching—Flour 2, 14, 43
Blended and Prepared Flour—Production 17-19
Boards of Trade (See Grain Exchanges)
Bolivia—Flour and Grain, Duties on.. 52
Bond—Milling Flour in 11
Warehouses 12
Boston—Elevators 70
Receipts and Shipments 75
Bran—Definition, Feedingstuffs 97
Exports, U.S. 35, 36
Production, U.S. 18
Brazil—Crops 82-85, 88
Flour and Grain, Duties on 52
Self-Rising Flour Regulations 44
Bread—Enrichment, Standards 3, 116
Label Regulations 3, 116
Label Statement 3, 116
Prices, U.S., Average 118
Regulations, State 111-115
Bread—Continued
Size, Regulations 111
Standards 3, 116
Breeding Wheat 110
Brewers' Dried Grains—Production ... 100
Used as Feeds 102
British (See United Kingdom)
British Columbia—Elevators 70
British Guiana—Flour and Grain, Duties on 52
British Honduras—Flour and Grain, Duties on 50
British Isles (Also See Great Britain and United Kingdom) — Flour and Wheat, Imports, Crop Years 45
British Malaya—Flour and Wheat, Duties on 54
British West Africa—Package Regulations 42
British West Indies—Flour and Grain, Duties on 51
Bromated Flour—Definition and Label Standard 14
Brown-Duvel Moisture Tester 78
Buckwheat—Crops 83, 87, 89, 90
Types of 89
Buckwheat Products—Definition, Feedingstuffs 96
Buffalo—Canadian Grain Receipts 76
Corn Exchange, Officers 74
Elevators 70
Flour Mills 24
Flour Prices 20
Flour Production 26, 27
Millfeed Prices 106
Receipts by Lake 75
Bulgaria—Bleaching Regulations 43
Crops 82-85, 88
Flour and Grain, Duties on 48
Mills 46
Self-Rising Flour Regulations 44
Bushel—Kernels in Bushel of Wheat.. 87
By Product Feeds—Consumption of 102
Fed 103
Production 100
Caicos Islands—Flour and Grain, Duties on 51
Calcium—Analysis for Feedstuffs..... 98
Enrichment, Flour 3, 14
California—Elevators, Grain Warehouses 70
Calves—Population by States 104
Canada—Barley, Exports, Crop Years.. 35
Bleaching Regulations 43
Carryover vs. Crops 65
Crop Report Dates 88
Crops 83-88
Crops vs Carryover 65
Duties on 50
Elevators, Licensed 70
Elevators, Terminal 70
Elevators, Vancouver 70, 74
Feed Laws 110
Flaxseed, Exports, Crop Years 35
Flaxseed, Production 90
Flour, Exports, to Philippine Islands 38
Flour, Exports, Crop Years 33, 35
Flour and Wheat, Exports, Crop Years 35
Flour Milling Activity 25
Flour Milling Capacity by Cities ... 25
Flour Milling Capacity by Provinces 25
Flour Prices 3
Flour Production, Calendar Year 27
Flour Production by Months 25
Grain, Duties on 50
Grain, Exports, Crop Years 35

Buy Your Grain From...

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Canada—Continued
Grain Inspection, Charges 65
Grain Inspection, Western Canada ... 80
Grain Ports, Opening and Closing Dates 76
Import Duties 50
Lake Shipments of Wheat 80
Millfeed Exports 107
Millfeed Output 107
Oatmeal Exports 35
Oatmeal Production 35
Oats, Exports, Crop Years 35
Oats, Rolled, Exports 35
Oats, Rolled, Production 35
Package Regulations 42
Rye Exports, Crop Years 35
Self-Rising Flour Regulations 44
Terminals on Upper Lakes 70
Wages, Flour Mill 20
Wheat, Amount Ground 25
Wheat Exports, Crop Years 35
Wheat Prices 64
Wheat, Visible, Supply 64
Capacity (Under Individual City)
Buffalo Mills 24
Canadian Mills, by Cities 25
Canadian Mills by Provinces 25
Canadian Oatmeal Mills 25
Chicago Mills 24
Elevator 70-74
Foreign Flour Mills 46
U.S. Mills, by States 24
Carotene—Analysis Table 98
Carryover (See Also Stocks)
Canada 65
Feed Grains 107
Cat Food 93
Cattle—Population by States 104
Value in U.S. 108
Ceilings for Commodity Prices, Formula 29
Census—Baking Industry, U.S. 112-115
Feedingstuffs Industry, U.S. 17, 92-96
Flour Milling Industry, U.S. 17-21
Prepared Feeds, U.S. 17, 92-96
Rye Flour Production, U.S. 15, 28
Wheat Flour Production, U.S. 18-21, 26, 28
Central States—Flour Production 26
Cereals—Consumption, U.S. 39
Certificate Final Terms 83
Chambers of Commerce (See Grain Exchanges)
Chicago—Board of Trade—
Contract Grades 56
Futures Trading 56
Officers 74
Elevators, Private 71
Elevators, Public 71
Flour Mills 24
Flour Prices 20
Flour, Rye, Prices 3
Lake Shipments 80
Millfeed Prices 106
Oats Prices 66
Open Board of Trade — Contract Grades 57
Receipts and Shipments 75, 78
Soybeans Prices 97
Chickens—Population by States 105
Chili—Flour and Wheat, Duties on... 52
China—Flour and Grain, Duties on ... 54
Import Regulations 45
Chlorine—Flour Bleach 14
Chlorine Dioxide—Flour Bleach 14
Choline—Analysis for Feedstuffs 98
Chop—Definition, Feedingstuffs 96
Cincinnati—Elevators 70
Receipts and Shipments 75
Civilian Flour Consumption 29
Classes of Wheat Inspected in U.S. 81
Clubs 122-124
Colombia—Bleaching Regulations 43
Flour and Wheat, Duties on 52
Self-Rising Flour Regulations 44
Concentrates Fed 103
Consumption—By-Product Feeds ...102, 103
Flour by Bakeries, U.S. 114, 115
Flour, Commercial 29
Flour, Per Capita, U.S. 29, 39
Grain Products, U.S. 39
Rye Per Capita 39
Wheat, Canada 64
Wheat, U.S. 39, 58
Containers (See Packages)
Regulations Prohibiting Re-Use for Flour and Cereal Packaging 3
Contract—Grades 56-64
"Open" Definition 57
Controls—Defense Mobilization 29
Conversion Tables—Feedstuffs Analysis 98
Copra Cake and Meal—Production 100
Used as Feeds 102
Corn—Carryover 107
Contract Grades 56-64
Crops 35, 36, 85, 90
Exports, U.S. 34, 37, 38
Farm Stocks 68
Futures Trading 56-64
Grades, U.S. 66
Imports, U.K. 45
Imports, U.S. 34
Meal, Consumption, U.S. 39
Meal, Production 38
Meal, U.S., Production 38
Movement 75-81
Prices, Index Numbers of 108

Corn—Continued
Standards 66
Stocks 68
Syrup, Consumption, U.S. 39
Corn Products—Consumption, U.S. 39
Definition 66
Enrichment 66
Production, U.S. 18
Standards 65
Costa Rica—Bleaching Regulations 43
Flour and Grain, Duties on 50
Import Regulations 45
Package Regulations 42
Self-Rising Flour Regulations 44
Costs—Baking Industry, Materials ..115
Feed Milling, Materials 94, 95
Flour Milling, Materials 17, 21
Flour Production 3
Grinding or Milling of Grain, U.S. ... 17, 21
Cottonseed (Oil Cake and Meal)—Exports, U.S. 34
Imports, U.S. 34
Production 100
Used as Feeds 102
Country Mill and Elevator Stocks ... 63, 65
Cows—Milk, Population by States 104
Population by States 104
Value in U.S. 108
Cracker—Census Report 112, 115
Crackers (See Biscuits)
Crop—Canadian Report Dates 86
Acreage (See Wheat, Corn, Etc., Below)
Acreage Seeded for Spring Wheat 90
Acreage Seeded 1951 Winter Rye Crop 86
Acreage Seeded 1951 Winter Wheat Crop 89
Acreage, Yield and Production ... 85-92
Alberta 85
Algeria 82-85, 88
Argentina 82-88
Australia 82-88
Austria 82-88
Barley in U.S. 86, 88
Belgium 82-88
Brazil, Wheat 82
Buckwheat in U.S. 83, 87
Bulgaria 82-88
Canada 82-88
Canada Western Provinces 85
Canadian Report Dates 86
Chile 82-88
Corn in U.S. 86, 89
Czechoslovakia 82-88
Denmark 82-88
Distribution (See Consumption)
Durum Wheat in Northwest of U.S. 82, 90
Eire 82-90
Egypt 82-88
England (See U.K.) 46, 82-88
Estimate, Winter Wheat in U.S. 82
Estimates, Preliminary Spring Wheat in U.S. 82
Finland 82-88
Flaxseed in U.S. 87, 90
France 82-88
Germany 82-88
Grain Sorghums 95
Greece 82-88
Hungary 82-88
India 82-88
Italy 82 88
Japan 82-88
Luxemburg, Wheat 82
Manitoba 85
Mexico 82-88
Morocco 82-88
Netherlands 82-88
New Zealand 82-88
Norway 82-88
Oats in U.S. 86, 87
Palestine 82-88
Portugal 82-88
Rumania 82-88
Russia 82-88
Rye in U.S. 86, 87
Rye, Winter Acreage Seeded for 1950 86
Saskatchewan 85
South Africa 82-88
Soybeans Harvested 94
Spain 82 88
Sweden 82-88
Switzerland 82-88
Syria and Lebanon 82-88
Tunis 82-88
Turkey 82-88
United Kingdom 46, 82-88
U.S. Report Dates 84
Uruguay 82-88
Wheat Acreage by States 87, 89, 90
Wheat, by Classes in U.S. 86
Wheat (Combined) in U.S. 90
Wheat, Spring Acreage Seeded 90
Wheat, Spring, in U.S. 90
Wheat, White in U.S. 90
Wheat, Winter, in U.S. 86, 90
Wheat, World Crop 82
Yugoslavia 82-88
Cuba—Bleaching Regulations 43
Flour and Grain, Duties on 51
Package Regulations 42
Self-Rising Flour Regulations 44
Curacao (N.W.I.)—Flour and Grain, Duties on 51

Czechoslovakia—Crops 82-83
Flour and Grain, Duties on 48
Mills 46
Dallas-Ft. Worth—Flour Milling Activity 22
Flour Mills 24
Flour Production 22
Dallas—Grain Exchange Officers 74
Danube (Lower Danube)—Flour and Wheat, Exports, Crop Years 33
Defense Production Act 29
Defense Production Administration, William H. Harrison, Administrator 29
Definitions—Barley, Feedingstuffs 96
Buckwheat Products, Feedingstuffs 96
Chop, Feedingstuffs 96
Corn Products 96
Dockage 68
Feedingstuffs 96
Farina 69
Flour (Durum, Enriched, Bromated, Self-Rising, Phosphated, Whole Wheat) 14
Milling in Bond 11
Milling in Transit 41
Oat Products, Feedingstuffs 96
Rye Products, Feedingstuffs 96
Screenings, Feedingstuffs 96
Semolina 20
Wheat Products, Feedingstuffs 97
Denmark—Bleaching Regulations 43
Crops 82-88
Flour and Grains, Duties on 48
Flour Buying Methods 47
Flour Controls 47
Mills 46
Detroit—Elevators 70
Differentials—Export Flour Package.. 41
Disappearance (See Consumption and Distribution)
Distillers' Dried Grains—Production ... 100
Used as Feeds 102
Distribution—Durum, U. S. 61
Method, U.K. 44
Rye, U.S. 65
Wheat, Canada 64
Wheat, U.S. 58, 61
Dockage—Definition 68
Dockage in Wheat Receipts 77
Dog Food Production 93
Dominica—Flour and Grain, Duties on 51
Dominican Republic—Flour and Grain, Duties on 51
Duluth—Board of Trade—
Contract Grades 57
Futures Trading 57
Duluth-Superior—Elevators 70
Flour Mills 24
Lake Shipments 75, 78
Movement 75, 78
Durum—Flour, Definition 14, 19
Products, U.S., Production 29
Wheat, U.S., Amount Ground 29
Wheat, U.S., Crops 82, 90
Wheat, U.S., Distribution 61
Wheat, U.S., Exports 36, 38
Duties—Canadian Import 50
U.S. Import 50
World Import 48-55
Eastern Canada—Elevators 70
Economic Stabilization Agency 29
Ecuador—Flour and Wheat, Duties on 52
Import Regulations 45
Package Regulations 42
Self-Rising Flour Regulations 44
Egypt—Crops 82-88
Flour and Grain, Duties on 53
Package Regulations 42
Eire—Crops 82-88
Flour and Grain, Duties on 49
Elevators—Canada 70
U.S. and Principal Centers 70
El Salvador—Flour and Grain, Duties on 50
Employees—Baking Industry 112
Feed Milling Industry 92
Flour Milling Industry 17, 19, 21
Enid—Board of Trade Officers 74
Enriched Flour—Definition and Label.. 3, 14
Enrichment — Bread, Standards and Labels 3, 116
Corn Products 66
Flour, Standards and Labels, U.S.. 3, 14
Flour, State Laws 3
Premix Standard 3
Standards, Bread 3, 116
Standards, Flour, U.S. 3, 14
Enzymes—Deficiency, Flour 14
Movies 120
Ergot—Definition 81
Estimates of Crops (See Crop Estimates)
Europe (Look Under Country About Which Information Is Desired)
Crops 82-88
Flour and Grain, Duties on 48, 49
Flour and Wheat, Imports, Crop Years 33
Evansville—Elevators 71
Exchanges (See Grain Exchanges)
Exports—Barley, Canada, Crop Years.. 35
Barley, U.S. 37, 38
Barley, U.S., Lend Lease 38
Barley, U.S., UNRRA 38
Bran, U.S. 36
Control, Denmark 47
Corn, U.S. 34, 37

Exports—Continued
Cottonseed (Oil Cake and Meal), U.S. 34
Durum, U.S. 36, 35
Feedingstuffs 34
Flaxseed, Canada, Crop Years 35
Flour, Argentina 33
Flour, Canada, Crop Years 33, 35
Flour, Canada, to Philippine Islands 38
Flour Package Differentials 41
Flour, U.S., by Months 33
Flour, U.S., Calendar Years 30, 36
Flour, U.S., Crop Years 37, 38
Flour, U.S., Lend Lease 30
Flour, U.S., to Possessions and Territories 36
Flour, U.S., Trade Terms 37
Flour, by U.S. UNRRA 30
Flour and Wheat, by Argentina, Crop Years 33
Flour and Wheat, by Australia, Crop Years 33
Flour and Wheat, by Canada, Crop Years 33
Flour and Wheat, by French North Africa, Crop Years 33
Flour and Wheat, by India, Crop Years 33
Flour and Wheat, by Lower Danube, Crop Years 33
Flour and Wheat, by U.S., Crop Years 33
Grain, Canada, Crop Years 33, 35
Grain, U.S. 37, 38
Linseed (Oil Cake and Meal), U.S. 34
Macaroni, U.S. 36
Middlings, U.S. 36
Millfeed, Canada 107
Oatmeal Canada 25
Oats, Canada, Crop Years 35
Oats, Rolled, Canada 25
Oats, U.S. 37, 38
Rye, Canada, Crop Years 35
Rye, U.S. 35, 37, 38
Semolina, U.S. 36, 38
Soybeans, U.S. 36
Soybeans (Oil Cake and Meal), U.S. 34
Subsidy 41
Vancouver Grain & Flour 35
Wheat, Argentina 33
Wheat, Canada, Crop Years 35
Wheat, U.S., Calendar Years 31, 38
Wheat, U.S., Crop Years 37, 38
Wheat, U.S., by Months 34
Wheat, U.S., Lend Lease 31
Wheat, U.S., UNRRA 31
Farina—Definition 19
Label 19
Farm—Stocks On and Off..58, 62, 63, 65, 68
Animal Population by States....104, 105
Feed (See Feedingstuffs)
Canada Laws **110**
Production, Census by States 92-96
Production, U.S., Dog and Cat....93
Production, U.S., Mineral 93
Production, U.S., Prepared 93
Feed Grains—Prices, Index Numbers of 108
Stocks 97
Feedingstuffs—Analysis Table 98
Census, U.S. 92-96
Definitions 96
Exports 36
Fed 103
Imports 35
Label Requirements, by States ...100-110
Prices, Wholesale, Index Numbers of 109
Production 93, 100
Production, Costs 92
Production of Grains for 103, 107
Production, Value 92, 93
Receipts 76
Registration, State Laws Affecting 100-110
Rules Adopted by Feed Trade 91
Sales, State Laws Affecting 100-110
Shipments 76
Stocks, U.S. 103
Supply 103
Weights, State Laws Affecting...100-110
Fiber—Analysis for Feedstuffs....98
Finland—Crops 82-88
Flour and Grain, Duties on 48
Fish Cake and Meal—Production 100
Used as Feeds 102
Flaxseed—Contract Grades 56-64
Crops 87, 90
Exports, Canada, Crop Years....35
Futures Trading 56-64
Imports, U.S. 34
Movement 75-80
Production, Canada 90
Production, U.S. 87, 90
Flour—Admixture, U.K. 44
Agene Bleaching 14
Bags (See Packages)
Bleached, Label 2
Bleaching, U.S. 2, 14
Blended, Production 18
Bromated, Standards 14
Commercial, Consumption, U.S. 29
Consumption, U.S. 29, 39
Consumption, U.S. Bakeries 114, 115
Containers (See Packages)
Controls, Denmark 47
Controls, U.K. 44
Cost of Production 2
Definitions and Standards of Identity 14
Denmark Buying Methods 47

Flour—Continued
Enrichment, Standards and Labels, U.S. 3, 14
Enrichment, State Laws 3
Export Package Differentials 41
Export Trade Terms 37
Exports, Canada, Crop Years....33, 35
Exports, Canada, to Philippine Islands 38
Exports, U.S., by Months 33
Exports, U.S., Calendar Years..30, 32, 38
Exports, U.S., Crop Years 37, 38
Exports, U.S., Lend Lease 30, 32
Exports, U.S., to Possessions and Territories 36
Exports, U.S., UNRRA 32
Imports, British Isles, Crop Years..33, 45
Imports, Europe, Crop Years 33
Imports, Norway 46
Imports, Russia, Crop Years 33
Imports, U.K 45
Imports, U.S 34
Imports, by U.S. Possessions and Territories 36
Imports, World Duties 48-55
India Milling 47
Ingredients 24
Label Requirements 3, 14
Milling Capacity, Canadian Cities ..25
Milling Capacity, Canadian Provinces 25
Milling Capacity, Ft. Worth-Dallas..24
Milling Capacity, Hutchinson 24
Milling Capacity, Kansas City 24
Milling Capacity, Minneapolis 24
Milling Capacity, Omaha 24
Milling Capacity, Salina 24
Milling Capacity, Southwest 24
Milling Capacity, U.K. 46
Milling Capacity, U.S., by States ...24
Milling Capacity, Wichita 24
Milling in Bond 11
Milling Industry, U.S., Census 17-21
Milling, U.K. 44
Mills, Atchison 24
Mills, British, Destroyed by War ...47
Mills, Buffalo 24
Mills, Canadian, by Cities 25
Mills, Canadian, by Province 25
Mills, Chicago 24
Mills, Duluth-Superior 24
Mills, Foreign 46
Mills, Ft. Worth-Dallas 24
Mills, Hutchinson 24
Mills, Kansas City 24
Mills, Minneapolis 24
Mills, Omaha 24
Mills, Salina 36
Mills, Seattle 24
Mills, Sherman 24
Mills, Southwest 24
Mills, Tacoma 24
Mills, U.S., Largest 28
Mills, U.S., Number of 24
Mills, U.S., by States 24
Mills, Wichita 24
Moisture Content 14
National, U.K. 44

Flour—Continued
Package Differential Schedule, Export 41
Packages, Laws by States 5-11
Packages, Weights 5-11
Prepared Mixes, Label Requirements 3
Prices, Buffalo 20
Prices, Canada 3
Prices, Chicago 20
Prices, Kansas City 20
Prices, Minneapolis 20
Prices, St. Louis 20
Prices, Seattle 20
Prices, Toronto 3
Prices, U.K. 44
Prices, U.S., Carload 20
Prices, U.S., Retail 3
Prices, Winnipeg 3
Production, Buffalo 26, 27
Production, Canada, by Months 25
Production, Canada, Calendar Year ..27
Production, Census Reports 26, 28
Production, Central States 26
Production, Ft. Worth-Dallas 22
Production, Kansas 22-28
Production, Kansas City 22, 26, 27
Production, Minneapolis 23, 26, 27
Production, Minnesota 23, 28
Production, Montana 23, 28
Production, Nebraska 22, 28
Production, N.D. 23, 28
Production, North Pacific Coast 26
Production, Northwest 23
Production, Oklahoma 22, 28
Production, Omaha 22
Production, Portland 26, 27
Production, St. Louis 27
Production, Salina 22, 26
Production, Seattle 26, 27
Production, South Dakota 23, 28
Production, Southeast 26
Production, Southwest 22, 26
Production, Tacoma 26, 27
Production, Texas 22, 28
Production, Toledo 27
Production, U.S. 26, 28
Production, U.S., Calendar Year 26, 28
Production, U.S., Monthly Reports..26
Production, U.S., Value 17-21
Production, U.S., by States, Calendar Year 26, 28
Production, U.S., by States, Crop Year 28
Production, Wichita 22, 26, 27
Receipts and Shipments 75-81
Regulations, by States 5-11
Rye, Chicago, Carload Prices 3
Rye, Minneapolis, Carload Prices 3
Rye, U.S., Production 28
Self-Rising, U.S., Production 18
Standards 3, 14
Stocks in Mills, Quarterly 5
Subsidy Program 41
Flour Millers Export Assn. — Export Flour Package Differential Schedule 41
Uniform Flour Export Trade Terms 37
Food and Drug Administration—Bread Standards 116

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Food and Drug Admin.—Continued
Flour Standards 14
Label Requirements 2, 14
Food, Drug and Cosmetic Act—Definitions and Standards of Identity, Wheat Flour and Related Products 14
Label Statement 2, 14
Forecasts of Crops (See Crop Estimates)
Formosa—Import Duties 54
Formula Feeds—Analysis Table 98
Ft. William—Elevators 70
Ft. Worth—Elevators 71
Grain & Cotton Exchange Officers.. 74
Movement 75
Ft. Worth-Dallas—Flour Milling Activity 22
Flour Milling Capacity 24
Flour Production 22
France—Bleaching Regulations 43
Crops 82-88
Flour and Grain, Duties on 48
Mills 46
Self-Rising Flour Regulations 44
Freight—Transit Rate 41
French Indo-China—Flour and Grain, Duties on 54
French West Indies—Bleaching regulations 43
Flour and Grain, Duties on 52
Import Regulations 45
Package Regulations 42
Self-Rising Flour Regulations 44
Futures—Trading Regulations 56-64
Galveston Elevators 76
General Ceiling Price Regulation Issued 29
Germany—Bleaching Regulations 43
Crops 82-88
Flour and Grain, Duties on 48
Flour Imports 46
Flour Trades in 46
Gibraltar—Import Regulations 45
Package Regulations 42
Gluten Feed and Meal—Production .. 100
Used as Feeds 102
Grades—Contract Grades at Chicago 56
Contract Grades at Duluth 57
Contract Grades at Kansas City 58
Contract Grades at Los Angeles..... 59
Contract Grades at Memphis 59
Contract Grades at Milwaukee 60
Contract Grades at Minneapolis 60
Contract Grades at Portland 62
Contract Grades at St. Louis 62
Contract Grades at San Francisco... 64
Contract Grades at Seattle 64
Contract Grades at Winnipeg 64
Corn, U.S. 66
Wheat Inspections of U.S., by Grades 81
Wheat, U.S. 67
Grain—Amount Ground, U.S. 26
CCC Stocks 58, 97
Consumption, U.S. 39
Contract Grades 56-64
Elevators 70-74
Exports, Canada, Crop Years 35
Exports, U.S. 37, 38
Futures Trading 56-64
Imports, U.S. 34
Imports, World Duties 48-55
Inspection (See Inspection)
Movement 75-81
Storage 70-74
Supplies 58-65
Grain Exchanges—Baltimore Chamber of Commerce, Officers 74
Buffalo Corn Exchange, Officers ... 74
Chicago Board of Trade, Officers... 74
Contract Grades 56-64
Futures Trading 56-64
Kansas City Board of Trade, Officers 74
Minneapolis Grain Exchange, Officers 74
Omaha Grain Exchange, Officers ... 74
St. Louis, Merchants Exchange of, Officers 74
Seattle Grain Exchange, Officers ... 74
Winnipeg Grain Exchange, Officers.. 74
Grain Sorghums—Contract Grades ...58, 59
Crop 95
Prices, Index Numbers of 108
Grain and Feed Dealers National Assn. —Rules Governing Transactions in Feedstuffs 91
Great Britain (Also See U.K. and British Isles)
Greece—Bleaching Regulations 43
Crops 82-88
Flour and Grain, Duties on 48
Mills 46
Self-Rising Flour Regulations 44
Grenada—Flour and Grain, Duties on.. 51
Grinding in Bond 11
Grindings—Grain, U.S., for Feed 94-96
Wheat, Canada 25
Wheat, Northwest 23
Wheat, Southwest 22
Wheat, U.S., Durum 29
Guadeloupe—Flour and Grain, Duties on 52
Guam—Flour, Imported from U.S. 36
Guatemala—Bleaching Regulations 43
Flour and Grain, Duties on 50
Package Regulations 42
Self-Rising Flour Regulations 44
Haiti—Flour and Grain, Duties on ... 52
Hard Wheat (See Also Wheat)
Heifers—Population by States 104
Hogs—Population, by States 104
Holland—Mills 46
Hominy—Consumption, U.S. 39
Honduras—Flour and Grain, Duties on 50
Hong Kong—Bleaching Regulations ... 43
Flour and Grain, Duties on 54
Import Regulations 45
Package Regulations 42
Horses—Population, by States 104
Value in U.S. 108
Houston—Elevators 71
Hungary—Crops 82-88
Flour and Grain, Duties on 49
Hutchinson Board of Trade, Officers.. 74
Hutchinson—Flour Milling Capacity .. 24
Identity (See Definitions)
Imports—Barley, U.S. 34
Controls, Denmark 47
Corn, U.S. 34
Cottonseed (Oil Cake and Meal), U.S. 34
Duties, Canada 50
Duties, U.S. 50
Duties, World 48-54
Feedingstuffs 34, 35
Flaxseed, U.S. 34
Flour, Guam 36
Flour, Norway 46
Flour, Puerto Rico 36
Flour, Samoa (American) 36
Flour, U.S. 36
Flour, Virgin Islands 36
Flour and Wheat, British Isles, Crop Years 33
Flour and Wheat, Europe, Crop Years 33
Flour and Wheat, Russia, Crop Years 33
Flour and Wheat, U.K. 33, 45
Foreign Regulations 45
Grain, U.S. 34
Linseed (Oil Cake and Meal), U.S. 34
Millfeed, U.S. 35
Oats, U.S. 34
Rye, U.S. 34
Rye Flour, U.S. 34
Soybeans, U.S. 36
Soybeans (Oil Cake and Meal), U.S. 34
Wheat, U.S. 34
Index Numbers of Feed Grain Prices.. 108
Index Numbers of Wholesale Feedstuff Prices 109
India—Crops 82-88
Flour and Grain, Duties on 54
Flour and Wheat, Exports, Crop Years 33
Flour Milling 47
Indianapolis—Elevators 71
Movement 75
Indonesia—Flour and Grain, Duties on 54
Inspection—Grain, Western Canada ... 80
Grain, Canada, Charges 65
Wheat, U.S., by Grade and Type.... 81
Wheat, Winnipeg 80
International Wheat Agreement — Subsidy 41
Iraq—Package Regulations 42
Ireland (See Eire)
Iron—Enrichment, Flour-Bread 3, 14
Israel—Flour and Grain, Duties on ... 54
Italy—Bleaching Regulations 43
Crops 82-88
Flour and Grain, Duties on 49
Mills 46
Package Regulations 42
Self-Rising Flour Regulations 44
Jamaica—Flour and Grain, Duties on.. 51
Japan—Crops 82-88
Flour and Grain, Duties on 54
Kansas—Elevators, Mills 71
Flour Milling Activity 22
Flour Milling Capacity 24
Flour Mills, Number of 24
Flour Production 22, 28
Wheat, Amount Ground 22
Kansas City—Board of Trade
Contract Grades, Grain 58
Contract Grades, Millfeed 58
Futures Trading 58
Officers 74
Elevators 71
Flour Milling Activity 22
Flour Mills 24
Flour Prices 20
Flour Production 22, 26, 27
Millfeed, Futures 59
Millfeed Prices 106
Movement 75, 80, 103
Wheat Prices 66
Kernels in Bushel of Wheat 87
Label—Bread 3, 116
Feedingstuffs, Laws by States 100-110
Flour, Bleached 2, 14
Flour, Enriched 3, 14
Flour (Enriched, Bromated, Self-Rising, Phosphated, Whole Wheat) .. 3, 14
Flour, Requirements 3, 14
Requirements, Flour 3, 14
Statement, Bread 3, 116
Statement, Flour 3, 14
Statement of Food, Drug and Cosmetic Act 14, 116
State Requirements, Feed 100-110
Lake Receipts at Buffalo 75
Lake Shipments at Chicago 80
Lake Shipments at Duluth-Superior .. 75, 78
Lambs—Population by States 105
Laws—Label 2, 3, 14, 116
State Flour Enrichment 3
Laws—Continued
State Laws Affecting Feedingstuffs 100-110
State Laws Affecting Flour 5-11
State Package Regulations .. 5-11, 100 110
Lebanon—Flour and Grain, Duties on.. 54
Le Mar, Harold D.—Baking Industry Price Chief, OPS 29
Lend Lease—Barley Exports 38
Corn Exports 34
Durum Wheat 38
Flour Exports 30, 32
Oats 37
Rye 35
Semolina 38
Wheat Exports 31
Lighterage—New York Free 80
Linseed Cake and Meal—Production .. 100
Used as Feeds 102
Linseed—Oil Cake and Meal, U.S. Exports 34
Oilcake and Meal, U.S., Imports ... 34
Mills, Minneapolis 108
Livestock—Value in U.S. 108
London (See Also U.K.)
Los Angeles Grain Exchange—Contract Grades 59
Loss in Storage—Feedstuffs 99
Luxemburg—Crops 82-88
Flour and Grain, Duties on 49
Macaroni—Exports, U.S. 36
Madagascar—Flour and Grain, Duties on 53
Malaya—Import Regulations 45
Malta—Import Regulations 45
Package Regulations 42
Malted Barley Flour 14
Malted Wheat Flour 14
Manitoba—Crops 85
Elevators 70
Martinique—Flour and Grain, Duties on 52
Memphis—Merchants Exchange—
Contract Grades 59
Futures Trading 59
Receipts and Shipments 75
Soybean Oil Meal, Futures 60
Merchants Exchange of St. Louis 74
Mexico—Crops 82-88
Flour and Grain, Duties on..... 50
Middlings—Exports, U.S. 36
Production, U.S. 18, 26
Mill Stocks 5, 58, 61
Millers National Federation—Organization 40
Presidents 40
Millers Organizations 122
Millfeed—Analysis 98, 99
Contract Grades 56-63
Definition, Feedingstuffs 97
Exports, Canada 107
Futures, Bran 56-64
Futures, Chicago 56
Futures, Kansas City 59
Futures, Middlings 56-64
Futures, St. Louis 63
Futures, Shorts 56-64
Futures Trading 56-64
Imports, U.S. 35
Prices, Buffalo 106
Prices, Chicago 106
Prices, Kansas City 106
Prices, Minneapolis 106
Prices, St. Louis 106
Production, U.S., Monthly Reports.. 26
Milling (Also See Mills)
Bonded Summary 11
Feed, Census Reports on Industry.. 17-21, 92-96
Feed, Cost of Materials 17-21, 92-96
Feed, Number of Employees ...19, 21, 92
Feed, Values of Products ...17, 18, 92, 93
Feed, Wages of Employees..17, 19, 92, 93
Flour Activity, U.S. 26
Flour Capacity, U.K. 47
Flour Capacity U.S. 24
Flour, Census Reports on Industry..17-21
Flour, Cost of Materials 17-21
Flour, Number of Employees 17-21
Flour, U.K. 47
Flour, Values of Products 17-21
Flour, Wages of Employees 17-21
Grain Ground, U.S. 26
Transit Definition 41
Mills—Feed, U.S., Cost of Materials...92-95
Feed, U.S., Employees 92-95
Feed, U.S., Employees' Wages 92-95
Feed, U.S., Number of 92-95
Feed, U.S., Production 92-95
Feed, U.S., Production Value 92-95
Flour, Atchison 24
Flour, Australia 46
Flour, British, Destroyed by War... 47
Flour, Buffalo 24
Flour, Buffalo, Production 26, 27
Flour, Canadian, Activity 25
Flour, Canadian by Cities 25
Flour, Canadian, by Provinces 25
Flour, Canadian Capacity, by Provinces 25
Flour, Central States, Production ... 26
Flour, Chicago 24
Flour, Duluth-Superior 24
Flour, Foreign (See by Countries)... 46
Flour, Ft. Worth-Dallas 24
Flour, Ft. Worth-Dallas, Production.. 22

Millis—Continued
Flour, Hutchinson, Capacity 24
Flour, Kansas, Activity 22
Flour, Kansas, Production 22, 28
Flour, Kansas City 24
Flour, Kansas City, Production ..22, 26, 27
Flour, Minneapolis 24
Flour, Minneapolis, Production ..24, 26, 27
Flour, Minnesota, Activity 24
Flour, Minnesota, Production 24, 28
Flour, Montana, Activity 24
Flour, Montana, Production 24, 28
Flour, Nebraska, Activity 22
Flour, Nebraska, Production 22, 28
Flour, North Dakota, Activity 24
Flour, North Dakota, Production ..24, 28
Flour, North Pacific Coast, Production 26
Flour, Northwest, Activity 24
Flour, Northwest, Production 24, 26
Flour, Oklahoma, Activity 22
Flour, Oklahoma, Production 22, 28
Flour, Omaha, Activity 22
Flour, Omaha, Production 32
Flour, Portland, Production 26, 27
Flour, St. Louis 27
Flour, St. Louis, Largest in 1860..... 27
Flour, St. Louis, Production 27
Flour, Salina, Activity 22
Flour, Salina, Production 22, 26, 27
Flour, Seattle, Capacity 26, 27
Flour, Seattle, Production 26, 27
Flour, Sherman 24
Flour, South Dakota, Activity 24
Flour, South Dakota, Production ...24, 28
Flour, Southeast, Production 26
Flour, Southwest 24
Flour, Southwest, Activity 22
Flour, Southwest, Production ...22, 26, 28
Flour, Tacoma 24
Flour, Tacoma, Production 26, 27
Flour, Texas, Activity 22
Flour, Texas, Production 22
Flour, Toledo, Production 27
Flour, U.K., Capacity 25
Flour, U.S., Capacity 24
Flour, U.S., Cost of Materials..17, 19, 21
Flour, U.S., Employees 17, 21
Flour, U.S., Employees' Wages ..17-21
Flour, U.S., Largest 28
Flour, U.S., Number of 24
Flour, U.S., Production 17-21, 26, 28
Flour, U.S., Production Value 2, 17
Flour, U.S., by States 24
Flour, Wichita 24
Flour, Wichita, Activity 22
Flour, Wichita, Production 23, 26, 27
Linseed, Minneapolis 103
Oatmeal, Canadian 25
Milwaukee—Elevators 72
Grain Exchange—
Contract Grades 60
Futures Trading 60
Receipts and Shipments 75
Mineral Feeds—Analysis 98, 99
Production 93
Minneapolis—Elevators 72
Flour Milling Activity 24
Flour Mills 24
Flour Prices 20
Flour Production 24, 26, 27
Flour, Rye, Prices 3
Grain Exchange—
Contract Grades 60
Futures Trading 60
Officers 74
Linseed Mills 108
Millfeed Prices 106
Receipts and Shipments 76
Wheat Prices 66
Minnesota—Flour Milling Activity 24
Flour Production 24, 28
Wheat, Amount Ground 24
Miquelon and St. Pierre — Flour and Grain, Duties on 50
Mixed Feeds (See Feedingstuffs)
Moisture—Brown-Duvel Tester 78
Content, Flour 14
Received in Wheat States 85
Moisture-Free Basis of Flour 14
Molasses Beet Pulp, Dried—Production 100
Used as Feeds 102
Montana—Flour Milling Activity 24
Flour Mills, Number of 24
Flour Production 24, 28
Wheat, Amount Ground 24
Montserrat—Flour and Grain, Duties on 51
Morocco—Crops 82-88
Flour and Grain, Duties on 53
Movement—Baltimore, Flour and Wheat 75
Boston, Flour and Wheat 75
Buffalo, Canadian Grain Receipts... 76
Buffalo, Grain Receipts by Lake ... 75
Canadian Grain Receipts at Buffalo.. 76
Chicago Flour, Feed and Grain ...78, 80
Chicago Grain and Flour by Railroads 78
Cincinnati Wheat 75
Dockage in Wheat Receipts 77
Duluth-Superior Grain 75, 78
Duluth-Superior Lake Shipments ...75, 78
Duluth-Superior Wheat, by Type 78
Flour at Principal Centers of U.S... 75
Ft. Worth Grain 75
Indianapolis Grain 75
Kansas City Feedingstuffs 103
Movement—Continued
Kansas City Grain 75, 80
Kansas City Grain by Months 80
Lake Shipments of Grain 81
Memphis Wheat 75
Milwaukee Wheat and Flour 75
Minneapolis Feed 78
Minneapolis Flour and Grain by Crop Years 76
Minneapolis Flour, Feed and Grain.. 76
Minneapolis Shipments by Mills and Railroads 76
New Orleans Wheat and Flour 75
New York Canals 76
New York Flour and Wheat 75
Omaha Grain 81
Philadelphia Wheat and Flour 75
Portland Flour and Grain 75
St. Joseph Wheat and Flour 75
St. Louis Grain 75, 80
Seattle Grain Receipts 77
Soybeans at Centers 110
Tacoma Grain Receipts 77
Toledo Wheat 75
Wheat at Principal Centers of U.S. 75
Wheat Receipts in U.S. by Grade... 81
Movies—Industrial 116
Mules—Value in U.S. 108
Nashville—Elevators 72
National Flour—U.K. 44
National Production Authority 29
Navigation—Opening and Closing of, in Canada 76
Nebraska—Elevators, Mill 72
Flour Milling Activity 22
Flour Mills, Number of 24
Flour Production 22, 28
Wheat, Amount Ground 22
Netherlands—Bleaching Regulations ... 43
Crops 82-88
Flour and Grain, Duties on 48
Mills 46
Self-Rising Flour Regulations 44
Netherlands Guiana (Surinam)—Flour and Grain, Duties on 52
Netherland Indies (Idonesia)—Package Regulations 42
Netherlands West Indies (Curacao)—Flour and Grain, Duties on 51
New Orleans—Elevators 72
Receipts and Shipments 75
New York—Elevators 72
Flour Milling Capital 1675-1750 27
Receipts and Shipment 75
New York Canals—Receipts and Shipments 76
New York Free Lighterage 80
New Zealand—Bleaching Regulations .. 43
Crops 82-88
Flour and Grain, Duties on 55
Mills 46
Self-Rising Flour Regulations 44
Niacin—Analysis for Feedstuffs 98
Enrichment, Flour-Bread 3, 14
Nicaragua—Flour and Grain, Duties on Import Regulations 50
Nitrogen Trichloride—Bleaching Agent 45
Nitrosyl Chloride—Flour Bleach 14
Norfolk—Elevators 14
North Africa (French) — Flour and Wheat, Exports, Crop Years 71
North Dakota—Flour Milling Activity 33
Flour Mills, Number of 24
Flour Production 24, 28
Wheat, Amount Ground 24
North Pacific Coast—Flour Production 26
Northwest—Crops (See Crops)
Flour Milling Activity 24
Flour Production 24, 26
Wheat, Amount Ground 24
Norway—Crops 82-88
Flour and Grain, Duties on 49
Flour Imports 46
Mills 46
Number of Mills in U.S. 24
Oatmeal—Consumption, U.S. 39
Exports, Canada 25
Production, Canada 25
Oat Products—Definition, Feedingstuffs 97
Oats—Carryover 107
Contract Grades 56-64
Crops 84, 86, 87
Exports, Canada, Crop Years 35
Exports, Canada, Rolled 25
Exports, U.S. 37, 38
Farm Holdings 63
Futures Trading 56-64
Imports, U.S. 34
Prices, Chicago 66
Prices, Index Numbers of 108
Production, Canada 90
Receipts 75-81
Shipments 75-81
Stocks 65, 68
Office of Defense Mobilization—Charles E. Wilson, Director 29
Office of Price Stabilization Chiefs—
Michael V. DiSalle 29
Joseph G. Schmitz 29
Oil Cake and Meal—Exports, U.S. 34
Imports, U.S. 34
Oil Meal—Soybean, Futures 59
Oklahoma—Elevators, Mill 72
Flour Milling Activity 22
Flour Mills, Number of 24
Flour Production 22, 28
Wheat, Amount Ground 22
Omaha—Elevators 72
Flour Milling Activity 22
Flour Milling Capacity 24
Flour Production 22
Grain Exchange, Officers 74
Movement 75, 81
Ontario—Elevators 70
Open Contracts—Definition 57
Osnaburg—Definition 95
Output (See Production)
Oxides of Nitrogen—Flour Bleach 14
Packages—Bread, Regulations 111-115
Cereal Products, Regulations Prohibiting Re-Use 3
Feedingstuffs, Laws by States ...100-110
Flour, Export, Differential Schedule 41
Flour Laws, by States 5-11
Flour, Regulations Prohibiting Re-Use 3
Pakistan—Bleaching Regulations 43
Flour and Grain, Duties on 55
Palestine (Israel)—Crops 82-88
Mills 46
Panama—Flour and Grain, Duties on .. 50
Pantothenic Acid—Analysis for Feedstuffs 98
Paraguay—Flour and Grain, Duties on 52
Import Regulations 45
Parity Prices (See Prices)
Peanut-Cake and Meal—Production 100
Used as Feeds 102
Per Capita Consumption 29, 39
Personnel—Baking Industry 112, 113
Feed Milling Industry 92
Flour Milling Industry 17, 19
Peru—Crops 82-88
Flour and Grain, Duties on 53
Philadelphia—Elevators 72
Movement 75
Philippines, Republic of — Bleaching Regulations 43
Flour and Grain, Duties on 55
Flour, Exports from Canada 38
Import Regulations 45
Phosphated Flour—Definition and Label 14
Phosphorus—Analysis for Feedstuffs .. 98
Poland—Flour and Grain, Duties on ... 49
Pt. Arthur, Canada—Elevators 70
Pt. Arthur, Texas—Elevators 71
Portland—Elevators 72
Flour Production 26, 27
Grain Exchange 62
Contract Grades 62
Movement 75
Ports — Grain, Opening and Closing Dates, Canada 76
Portugal—Bleaching Regulations 43
Crops 82-88
Flour and Grain, Duties on 49
Mills 46
Package Regulations 42
Self-Rising Flour Regulations 44
Potassium Bromate—Flour 14
Precipitation—U.S. Normals 85
Premixes—Enrichment Ingredients 3
Prepared Feeds—Production 93
Prepared Flour Mixes—Label Requirements 3
Pretzels (See Baking Industry)
Price Support Program 41
Prices—Barley, Index Numbers of ... 108
Corn, Index Numbers of 108
Feed Grain, Index Numbers of 108
Feedingstuffs, Wholesale, Index Numbers of 109
Flour, Buffalo 20
Flour, Canada 3
Flour, Chicago 20
Flour, Chicago, Rye 3
Flour, Kansas City 20
Flour, Minneapolis 20
Flour, Minneapolis, Rye 3
Flour, St. Louis 20
Flour, Seattle 20
Flour, Toronto 3
Flour, U.S., Carload 20
Flour, U.S., Retail 3
Flour, Winnipeg 3
Grain Sorghums, Index Numbers of.. 108
Millfeed, Buffalo 106
Millfeed, Chicago 106
Millfeed, Kansas City 106
Millfeed, Minneapolis 106
Millfeed, St. Louis 106
Milifeed, U.S. Cities, Carload 106
Oats, Index Numbers of 108
Parity, Wheat 64
Soybeans, Chicago 97
Voluntary Freeze 29
Wheat, England, Average 43
Wheat, Kansas City 66
Wheat, Minneapolis 66
Wheat, St. Louis 66
Wheat, U.S., Parity, by Months..... 64
Production—Baking Industry, Costs ... 112

Production—Continued
Barley 83, 86, 93
Bran, U.S. 18, 26
Corn Products, U.S. 18
Durum Wheat Products, U.S. 18, 29
Feedingstuffs, U.S. 18, 93
Feedingstuffs, U.S., Costs 92, 94
Flaxseed, Canada 90
Flaxseed, U.S. 87, 90
Flour, Buffalo 26, 27
Flour, Canada, Calendar Year 27
Flour, Canada, by Months 25
Flour, Central States 26
Flour, Ft. Worth-Dallas 22
Flour, Kansas 22, 28
Flour, Kansas City 22, 26, 27
Flour, Minneapolis 24, 26, 27
Flour, Minnesota 24, 28
Flour, Montana 24, 28
Flour, Nebraska 22, 28
Flour, North Dakota 24, 28
Flour, North Pacific Coast 26
Flour, Northwest 23, 24, 26
Flour, Oklahoma 22, 28
Flour, Omaha 22
Flour, Portland 26, 27
Flour, St. Louis 27
Flour, Salina 22, 26, 27
Flour, Seattle 26, 27
Flour, South Dakota 24, 28
Flour, Southeast 26
Flour, Southwest 22, 26, 28
Flour, Tacoma 26, 27
Flour, Texas 22, 28
Flour, Toledo 27
Flour, U.S. 18, 26, 28
Flour, U.S., Calendar Year 26, 28
Flour, U.S., Census Reports 18, 26, 28
Flour, U.S., Monthly Reports 26
Flour, U.S., Principal Milling Centers 27
Flour, U.S., by States, Calendar Year 28
Flour, United States, by States, Crop Year 28
Flour, U.S., Value 18
Flour, Wichita 22, 26, 27
Middlings, U.S. 18
Millfeed, Canada 107
Millfeed, U.S., Monthly Reports 26
Millfeed in U.S. 18, 26
Oatmeal, Canada 25
Oats, Rolled, Canada 25
Rye Flour, U.S. 28
Self-Rising Flour, U.S. 18
Semolina, U.S. 18, 29
Wheat by Classes 86

Protein—Analysis for Feedstuffs 93
Content, Flour 14

Puerto Rico—Flour, Imported From U.S. 36

Quarterly Stocks of Grain 62, 63, 65, 68

Quebec—Elevators 70

Quotations (See Prices)

Rainfall—U.S. Normals 55

Rates—Transit Freight 41

Receipts 75-81

Registration—Feedingstuffs 100-110

Regulations—Bleaching in Foreign Countries 43
Bread 111-118
Bread Enrichment 3, 116
British Control Wheat, Flour and Bread 44
Canadian Feed 110
Feedingstuffs 100-110
Feedingstuffs, by States 100-110
Flour, by States 5-11
Flour Containers, by States 5-11
Flour Containers, Used, by States 2
Futures Trading 56-64
Import in Foreign Countries 45
Self-Rising Flour in Foreign Countries 46

Retail Prices (See Prices)

Riboflavin—Analysis for Feedstuffs 93
Enrichment, Flour-Bread 3, 14, 117

Rice—Milled, U.S. Consumption 39

Rice Millfeeds—Production 106
Used as Feeds 102

Rules (See Regulations)

Rumania—Crops 82-88
Flour and Grain, Duties on 49
Mills 46

Russia—Crops 82-88
Flour and Grain, Duties on 50
Flour and Wheat, Exports 33

Rye—Alcohol Production 65
Contract Grades 56-64
Crops 86, 87, 88
Distribution in U.S. 65
Exports, Canada, Crop Years 35
Exports, U.S. 35, 37, 38
Flour, Chicago, Carload Prices 3
Flour Milled 18, 28
Flour, Minneapolis, Carload Prices 3
Flour, U.S., Consumption 39
Flour, U.S., Imports 34
Flour, U.S., Production 18, 28
Futures Trading 56-64
Imports, U.S. 34
Mill Grindings 28
Millfeed Production 18, 28
Movement 75-81
Seed 65

Rye Products—Definition, Feedingstuffs 97
St. Christopher and Nevis—Flour and Grain, Duties on 51
St. Joseph—Elevators 72
Movement 75
St. Louis—Elevators 72
Flour Mill, Largest in 1860-82 27
Flour Prices 20
Flour Production 27
Merchants Exchange of—
Contract Grades 62
Futures, Millfeed 62
Officers 74
Millfeed Futures 62
Millfeed Prices 106
Movement 75, 80

St. Lucia—Flour and Grain, Duties on 51

St. Pierre and Miquelon — Flour and Grain, Duties on 50

St. Vincent—Flour and Grain, Duties on 51

Salaries (See Wages)

Sales—Feedingstuffs, Laws of States Affecting 100-110

Salina—Flour Milling Activity 22
Flour Milling Capacity 24
Flour Production 22, 27

Samoa (American) — Flour, Imported From U.S. 36

San Francisco—Elevators 70
Grain Exchange 64
Contract Grades 64

Saskatchewan—Crops 85
Elevators 70

Saudi Arabia—Package Regulations 42

Schmitz, Joseph G.—Chief of Flour Price Section, OPS 29

Schools—Baking 121

Screenings—Definition, Feedingstuffs 97

Seattle—Elevators 72
Flour Mills 24
Flour Prices 20
Flour Production 26, 27
Grain Exchange—
Contract Grades 64
Futures Trading 64
Officers 74
Monadas 77

Secondhand Container Regulations 3

Seed—Rye Used for 62
Wheat Used for 58

Self-Rising Flour—Definition and Label 14
Foreign Regulations 44
Production, U.S. 18

Semolina—Definition 30
Exports, U.S. 36, 38
Production, U.S. 29

Sheep—Population by States 105
Value in U.S. 108

Sherman—Flour Mills 24

Shipments 75-81

Singapore—Import Regulations 45

Size—Regulations for Bread 111-115

Sorghums—Carryover 107

South Africa—Crops 82-88
Mills 46

South Dakota—Flour Milling Activity 22
Flour Mills, Number of 24
Flour Production 24, 28
Wheat, Amount Ground 24

Southeast—Flour Production 26

Southwest—Flour Production 22, 26, 28
Wheat, Amount Ground 22

Soviet Union (See Russia)

Soybean Cake and Meal—Production 100
Used as Feeds 102

Soybeans—Contract Grades 56-64
Crops 84
Exports, U.S. 36
Futures Trading 56-64
Imports, U.S. 36
Movement at Centers 110
Oil Cake and Meal, U.S., Exports 34
Oil Cake and Meal, U.S., Imports 34
Prices, Chicago 97

Spain—Bleaching Regulations 43
Crops 82-88
Flour and Grain, Duties on 49
Mills 46
Package Regulations 42
Self-Rising Flour Regulations 44

Spring Wheat — U.S. Inspections by Years 81

Standard Middlings (See Feedingstuffs)

Standards—Bread 116
Bread Enrichment 3, 116
Corn 65
Corn Products 65
Enrichment, U.S. 3, 14, 116
Enrichment Premix 3
Flour 14
Flour, Bromated 14
Flour, Enrichment 3, 14
Wheat 57

Stocks 58-65
Argentina, Wheat Carryover, July 1. 61
Australia, Wheat Carryover, July 1 61
Canada, Wheat Carryover, July 1 61
Canadian Grain, Aug. 1 ..... 64, 65
Carryover, World Wheat, July 1 61

Stocks—Continued
Distribution in U.S. 58-65
Farm Stocks of Wheat and Grain 63
Interior Points, Holding of Wheat 62, 63
Mill Holdings of Wheat Quarterly 62, 63
U.S. (See Stocks on Farms, Etc., Elsewhere Under "Stocks")
Wheat by Classes 64
World Wheat Carryover, July 1 61

Storage (See Elevators) 70
Loss in Feedstuffs 98

Sugar—Consumption by Baking Industry, U.S. 115

Supplies (See Stocks) 58-68

Surinam (Netherlands Guiana)—Flour and Grain, Duties on 52

Sweden—Bleaching Regulations 43
Crops 82-88
Flour and Grain, Duties on 49
Self-Rising Flour Regulations 44

Swine—Value in U.S. 108

Switzerland—Crops 82-88
Flour and Grain, Duties on 49
Self-Rising Flour Regulations 44

Syria—Flour and Grain, Duties on 55
Mills 46

Syria and Lebanon—Crops 82-88

Tacoma—Elevators 72
Flour Mills 24
Flour Production 26, 27
Receipts 77

Taiwan—Import Duties 54

Terminal—Elevators 70
Shipments 75-81

Terms (See Contracts)
Flour Export Trade 37

Texas—Flour Milling Activity 22
Flour Mills, Number of 24
Flour Production 22, 28
Wheat, Amount Ground 22

Thailand—Import Duties 55

Thiamine—Enrichment, Flour-Bread 3, 14, 116

Tobago—Flour and Grain, Duties on 51

Toledo—Elevators 74
Flour Production 27
Movement 75

Toronto—Flour Prices 3

Trade (See Imports and Exports)
Flour Export Terms 37
World 33

Transit Milling Defined 41

Trinidad—Flour and Grain, Duties on 51

Tunisia—Crops 82-88
Flour and Grain, Duties on 53

Turkey—Crops 82-88
Flour and Grain, Duties on 50

Turkeys—Population by States 105

Turks Island—Flour and Grain, Duties on 51

Type of Wheat Inspected in U.S. 81

Union of Socialist Soviet Republics (See Russia)

Union of South Africa (See British South Africa)
Bleaching Regulations 43
Flour and Grain, Duties on 54
Import Regulations 45
Package Regulations 42
Self-Rising Flour Regulations 44

United Kingdom (See Also Individual Cities Listed Herein)
Admixture of Imported Flour 44
Associations 124
Crops 46, 82-88
Flour Distribution 44
Flour, Extraction Rate in 44
Flour, Import Controls 44
Flour Prices 44
Flour and Grain, Duties on 50
Flour and Wheat, Imports 45
Flour Milling Capacity 46, 47
Flour Mills 46, 47
Flour Mills Destroyed by Enemy Action 47
National Flour 44
Regulations for Wheat, Flour 44
Wheat Acreage 48

UNRRA—Barley Exports by U.S. 38
Corn Exports by U.S. 34
Durum Wheat Exports by U.S. 38
Flour Exports by U.S. 30, 32
Oats Exports by U.S. 37
Semolina (See Durum)
Wheat Exports by U.S. 31

United States—Animal Population, Farm 104, 105, 110
Bakeries, Number of 112-113
Baking Companies, List of Larger 118
Baking Industry Census 112-116
Barley Exports 37, 38
Bread, Average Prices 118
Condition of Crops (See Condition)
Corn, Grades 66
Corn Exports 34, 37, 38
Corn Imports 34
Corn Products Production 18
Cottonseed (Oil Cake and Meal) Exports 34
Cottonseed (Oil Cake and Meal) Imports 34

United States—Continued
Crop Report Dates 84
Crops 82-90
Durum Wheat, Amount Ground 29
Durum Wheat Exports 36, 38
Durum Wheat Products Production .. 29
Elevators 70-74
Feed Mills, Number of 92
Feedingstuffs, Census 92-96
Feedingstuffs, Exports 36
Feedingstuffs, Production 92-96
Flaxseed, Production 87-90
Flour, Consumption 29, 39
Flour and Grain, Duties on 50
Flour, Exports, by Months 33
Flour, Exports, Calendar Years 30, 36
Flour, Exports, Crop Years 37, 38
Flour, Exports, Lend Lease 30, 32
Flour, Exports, to Possessions and Territories 36
Flour, Exports, UNRRA 30, 32
Flour, Imports 34
Flour and Wheat, Exports, Crop Years 37, 38
Flour Milling Activity 26
Flour Milling Capacity 24
Flour Milling Industry, Census 17-21
Flour Mills, Largest 28
Flour Mills, by States 24
Flour Packages 5-11
Flour Prices, Carload 20
Flour Prices, Retail 3
Flour Production 26, 28
Flour Production, Calendar Year ..26, 28
Flour Production, Calendar Year, by States 28
Flour Production, Census Reports ..26, 28
Flour Production, Crop Year, by States 28
Flour Production, Principal Milling Centers 27
Grades, Corn 66
Grades, Wheat 67
Grain, Amount Ground 26
Grain, Consumption 39
Grain and Flour, Duties on 50
Grain Exports 37, 38
Grain Imports 34
Import Duties 50

United States—Continued
Lend Lease (See Lend Lease)
Linseed (Oil Cake and Meal), Exports 34
Linseed (Oil Cake and Meal), Imports 34
Macaroni Exports 36
Millfeed Imports 35
Millfeed Prices, Carload 106
Oats Exports 37, 38
Rye Exports 35, 37, 38
Rye Flour Production 28
Self-Rising Flour Production 16
Semolina (See Durum)
Soybeans Exports 36
Soybeans Imports 36
Soybeans (Oil Cake and Meal), Exports 34
Soybeans (Oil Cake and Meal), Imports 34
Wheat, Amount Ground 26
Wheat, Consumption 39
Wheat, Distribution 58
Wheat, Exports, Calendar Years...31, 36
Wheat, Exports, Crop Years 37, 38
Wheat, Exports, by Months 34
Wheat, Exports, Lend Lease 31
Wheat, Exports, UNRRA 31
Wheat Grades 81
Wheat Imports 34
Wheat Inspection 81
Wheat Prices, Parity, by Months... 64
Wheat Production, Supplies and Consumption 58
Wheat Standards 67
Wheat, Types Inspected, Percentages 81
Wheat, Used for Feed and Seed .. 58
Wheat Yield, Per Acre 83, 87, 89, 90
Uruguay—Crops 82-88
Flour and Grain, Duties on 53
Used Container Regulations 3
Utilization—Feedingstuffs 103
Value—Baking Products, U.S. 112, 113
Corn Products Production 18
Feeding-tuffs Production, U.S. 92, 93
Flour Milling Production, U.S. 17, 18
Miscellaneous Mill Products 18
Vancouver—Elevators 74
Exports of Grain and Flour 35
Venezuela—Bleaching Regulations 43
Flour and Grain, Duties on..... 53

Venezuela—Continued
Package Regulations 42
Self-Rising Flour Regulations 44
Virgin Islands—Flour, Imported from U.S. 36
Flour and Grain, Duties on 51
Vitamin A—Conversion Table 99
Four Footed Animals 99
Poultry 99
Vitamins D_2 and D_3—Conversion Table 99
Vitamins—Enrichment, Flour 3, 14, 116
Wage Stabilization Board—Cyrus Ching 29
Wages—Baking Industry 50
Feed Milling Industry 92
Flour Milling, Canada 20
Flour Milling Industry 17, 19, 21
Wake Islands—Flour, Imported from U.S. 36
Weights—State Laws Affecting Feeds 109-110
State Laws Affecting Flour 5-11
Western Canada—Elevators 70
Wheat—Acreage, U.S. 83, 87, 89, 90
Amount Ground, Canada 25
Amount Ground, Northwest 23, 24
Amount Ground, Southwest 22
Amount Ground, U.S. 26
Analysis 98, 99
Breeding 110
Canadian Lake Shipments 80
Carryover 61
Consumption, Northwest 23, 24
Consumption, Southwest 22
Consumption, U.S. 39
Contract Grades 56-64
Dockage Receipts 77
Durum, U.S., Amount Ground 29
Durum, U.S., Exports 36, 38
Durum Products, U.S., Production... 29
Exports, Canada, Crop Years 35
Exports, Foreign Nations, Crop Years 33
Exports, U.S., Calendar Years 31, 36
Exports, U.S., Crop Years 37, 38
Exports, U.S., by Months 33
Exports, U.S., Lend Lease 31
Exports, U.S., UNRRA 31
Farm Stocks 62, 63
Feed Use, U.S. 103

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Wheat—Continued
Grades, U.S. 81
Identity, Crushed, Cracked 19
Grinding in Bond 11
Import Duties 48-55
Imports, British Isles, Crop Years.. 33
Imports, Europe, Crop Years 33
Imports, Russia, Crop Years 33
Imports, U.K. 33, 45
Imports, U.S. 34
Inspection, Winnipeg 80
Inspections, U.S. 81
Kernels, Number in Bushel 87
Movement 75-81
Prices, England 43
Prices, Kansas City 66
Prices, Minneapolis 66
Prices, St. Louis 66
Prices, Terminal 66
Prices, U.S., Parity, by Months ... 64
Prices, Winnipeg 64
Receipts 75-81
Semolina (See Durum)
Shipments 75-81
Standards 67
Stocks 58-68
Subsidy Payments 41
Types, Percentages Inspected in U.S. 81
Types, Received and Shipped at Duluth 79
Yield Per Acre 82, 85, 87, 89, 90
Wheat Millfeeds—Production ..18, 26, 100
Used as Feeds 102
Wheat Products — Definition, Feedingstuffs 97
Wheat Varieties 110
White Wheat—Production, U.S. 86
Wichita—Board of Trade Officers .. 74
Flour Milling Activity 22
Flour Milling Capacity 24
Flour Production 22, 26, 27
Winnipeg—Elevators 74
Flour Prices 3
Grain Exchange—
Contract Grades 64
Futures Trading 64
Officers 74
Wheat, Inspection 80
Wheat Prices 64
Winter Wheat (See Also Wheat, Crops, Etc.)
World—Carryover 61
Crops 82-88
Trade 33
Worthing, Dinsmore—Feed Price Consultant, OPS 29
Wrapping—Bread Regulations 111-115
Yield (See Crops)
U.K. Wheat 46
Yugoslavia—Crops 82-88
Flour and Grain, Duties on 50
Mills 46
Self-Rising Flour Regulations 44

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INDEX OF ADVERTISERS

Allen, James, & Co. (Belfast), Ltd.... 51
American Feed Co. 121
American Molasses Co. 117
Appraisal Service Co. 57
Archer-Daniels-Midland Co. 60
Barnard & Leas Mfg. Co., Inc..... 37
Barr Shipping Co. 42
Bay State Milling Co. 15
Bjornstad, Asbjorn P. 55
Cameron, John F., & Co., Ltd..... 47
Cargill, Inc. 73
Chubb & Son 43
Commander-Larabee Milling Co. 1
De Boer, W., & Co. 51
Early & Daniel Co. 125
Eckhart, B. A., Milling Co..... 11
Einfuhrhandel Mannheim 51
Farmers Union Grain Terminal Assn. .. 77
Fiorelius & Ulsteen A/S 55
Forrester Grain Co. 74
Fulton Bag & Cotton Mills .....Cover 2
Gray, A. R., Ltd. 47
Great Lakes Steel Corp. 101
Hallet & Carey Co. 109
Interstate Grain Corp. 67
Johansen & Co., Anth. 54
Jones-Hettelsater Const. Co. 8-9
Jordan, Omar 54
Justesen, Brodr. 55
Kimpton, W. S., & Sons 45
King, H. H., Flour Mills Co..... 7
Knappen Milling Co. 10
Leval & Co., Inc. 61
Long, W. E., Co..... 13
Luchsinger, Meurs & Co., Handel N.V... 53
Madsen, Rud. 44
Mardorf Peach & Co., Ltd..... 47
Meelunie, N.V. (Flour Union Ltd.)..... 52
Midland Flour Mills, Ltd. 48
Midland Warehouse Corp 59
Montana Flour Mills Co. 14
Nappanee Milling Co., Inc..... 27
Norenberg & Beisheim 55
Norris Grain Co. 12
Novadel-Agene Corporation .....Cover 3
Nulomoline Div., American Molasses Co. 117
Osborne McMillan Elevator Co. 31
Osieck & Co., v/h 53
Pillman & Phillips 49
Pioneer Bag Co. 23
Rice, Daniel F., & Co..... 65
Richmond Manufacturing Co. 25
Riegel Paper Corporation 119
Ruoff & Co., A 53
Russell, D. T., & Baird, Ltd..... 47
St. Cloud Milling Co. 93
Simonds-Shields-Theis Grain Co. ..Cover 4
Smith, Sidney, Flour, Feed & Grain, Ltd. 46
Smyth, Ross T., & Co., Ltd..... 51
Staley Milling Co. 35
Stannard Collins & Co., Ltd..... 49
Star of the West Milling Co..... 29
Tex-O-Kan Flour Mills Co., Kansas City Grain Division 16
Thomas, Vaughan, & Co., Ltd..... 49
Uhlmann Grain Co. 69
Van Dusen-Harrington Co. 58
Victor Chemical Works 4
Vreeswijk, Gebroeders 52
Wallace & Tiernan Co., Merchen Scale Feeders 6
Weevil-Cide Co. 70
Witsenburg, M., Jr., Firma 52
Witter, Dean, & Co. 127

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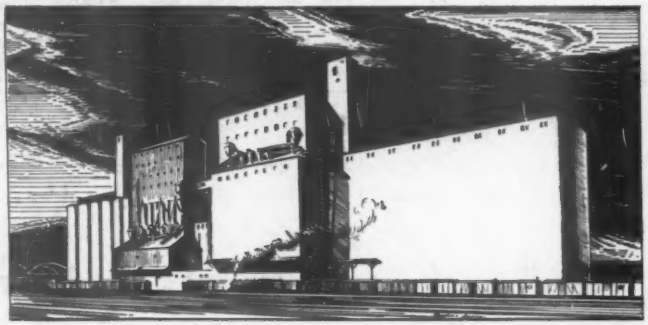

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